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THE ENDOCRINOLOGIST

THE MAGAZINE OF THE SOCIETY FOR ENDOCRINOLOGY

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A WORD FROM THE EDITOR...

Welcome to the winter issue of this fantastic magazine. I hope you are all in fine festive endocrine fettle (try saying that after a few glasses of mulled wine).

The theme for this season is social media. I am old enough to remember the excitement in 1985 when my dad got our new Atari console and we played our first game of 'Pong', a 2D table tennis game – this consisted of two straight lines hitting a square ball on our small kitchen TV. How times have changed - the technological revolution has given us the World Wide Web, Grand Theft Auto, an explosion in the use of e-mail, Facebook, Twitter, Instagram - and whatever other new developments some teenage millionaire techno-geek has to offer us.

So the digital age is providing new territory for the medical establishment, and we are feeling our way through it as clinicians and scientists. The idea for the theme of this edition has come from the scientific members of our editorial board who have written excellent articles on the opportunities new technology presents to us – you will be introduced to terms such as altmetrics and Flickr (new ones on me). The benefits of electronic progress must be balanced against the potential dangers of clinically sensitive material being widely posted in the electronic ether. There are increasing examples of unprofessional behaviour by doctors being captured on-line and the GMC have recently felt moved to publish formal guidance on this subject.

The festive period is fast approaching and you will have plenty of time to read this magazine over your relaxing winter break by the log fire – if nothing else you can use the nice picture on the front cover as wrapping paper! Happy reading and have a #MerryXmas from all at @Soc_Endo - see you at #sfebes14 in Liverpool (whatever that means)!

BEST WISHES
MILES LEVY

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www.endocrinology.org/endocrinologist

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Contact the Editorial office at **endocrinologist@endocrinology.org**

The Society welcomes news items, contributions, article suggestions and letters to the editor.
We would also like to hear your feedback on this issue of the magazine.
Deadline for news items for the Spring 2014 issue: 20 December 2013. Deadline for news items for the Summer 2014 issue: 22 March 2014.

We wish all our readers a very merry Christmas and happy new year!

Society for **Endocrinology**

BES 2014

24-27 March
The ACC Liverpool, UK

GET THE LATEST INFORMATION...

#SFEBES14

Don't forget to register for the 2014 Society for Endocrinology BES conference, which takes place in Liverpool on 24–27 March 2014. We will host a distinguished array of international experts from across the endocrine spectrum, who will deliver a wealth of presentations in the form of symposia, plenary lectures, oral communications and various workshops. This leading conference in the endocrine calendar is designed to engage clinicians, basic scientists, nurses and trainee endocrinologists with a wide range of translational topics. Register by the early bird deadline of **10 February 2014** to benefit from reduced rates. More information is available at **www.endocrinology.org/meetings/2014/sfebes2014.**

We look forward to seeing you in Liverpool!

JME AT 25

Past and present JME Editors-in-Chief

The *Journal of Molecular Endocrinology* 25th Anniversary celebratory dinner was held at the Academy of Medical Sciences in London on 20 September 2013. Those present included past Editors-in-Chief, Ian Mason, Evan Simpson and Anna Spada, the current Editor-in-Chief Adrian Clark, and Ashley Grossman, President of the Society for Endocrinology. Staff from the Society for Endocrinology and Bioscientifica also attended. Ashley thanked each of the Editors-in-Chief for their contribution to the journal's success, and each was presented with a commemorative gift.

You can view a selection of seminal papers published in JME over the past 25 years for free by visiting www.try-jme.org.

CONGRATULATIONS

We congratulate Society Member Duncan Bassett, who has recently been appointed as Professor of Endocrinology. Professor Bassett is based in the Molecular Endocrinology Group at Imperial College London.

bioscientifica

NEW CHAIR FOR BIOSCIENTIFICA BOARD

We welcome Professor Peter Trainer as Chair of the Bioscientifica Board. Peter is currently a Board member, and will take up his new role from 1 January 2014. Our thanks go to the outgoing Chair, Professor Michael Sheppard, for all his work in this role over the past 4 years.

CLINICAL CASES

Don't forget, our highly regarded National Clinical Cases meeting is returning to the Royal Society of Medicine in London on 25 February 2014. This meeting provides an ideal forum for trainees to present cases of interest to peers and senior colleagues. Full details and registration are available at www.endocrinology.org/meetings/2014/ncc2014.

SOCIETY CALENDAR

25 February 2014
NATIONAL CLINICAL CASES MEETING
London

24–27 March 2014
SOCIETY FOR ENDOCRINOLOGY BES 2014
Liverpool

23 May 2014
REGIONAL CLINICAL CASES MEETING
Dundee

15-16 September 2014
ENDOCRINE NURSE UPDATE

17-19 October 2014
CAREER DEVELOPMENT WORKSHOPS
Steventon, Oxfordshire

3-5 November 2014
CLINICAL UPDATE
Manchester

see **www.endocrinology.org/meetings** for full details

GRANT AND PRIZE DEADLINES

11 February 2014
UNDERGRADUATE ESSAY PRIZE

14 March 2014
SUMMER STUDENTSHIPS

15 April 2014
CONFERENCE GRANTS

27 May 2014
EARLY CAREER GRANTS

16 June-14 July 2014
UNDERGRADUATE ACHIEVEMENT AWARDS

see **www.endocrinology.org/grants** for full details of all Society grants

HOT TOPICS

SOCIETY FOR ENDOCRINOLOGY OFFICIAL JOURNALS

Society Members have free access to the current content of *Journal of Endocrinology*, *Journal of Molecular Endocrinology*, *Endocrine-Related Cancer* and *Clinical Endocrinology* via **www.bioscialliance.org.** *Endocrine Connections* and *Endocrinology, Diabetes & Metabolism Case Reports*, the Society-endorsed case reports publication, are open access and free to all.

JOURNAL OF ENDOCRINOLOGY

Anti-diabetic drugs attenuate brain dysfunction

Insulin resistance has been associated with learning and memory decline, and type 2 diabetes mellitus with dementia. Changes in cognitive function in these disorders may result from increases in triglyceride and cholesterol levels, in brain oxidative stress levels and brain mitochondrial dysfunction, and in circulating and brain glucocorticoid levels.

Pintana and colleagues investigated the effect of anti-diabetic agents on cognitive impairment and brain mitochondrial dysfunction in rats with insulin resistance induced by a 12-week high fat diet. Dipeptidyl-peptidase-4 (DPP-4) inhibitors, which increase glucagon-like peptide 1 levels and thereby cause decreased glucagon secretion and increased insulin sensitivity, improved the metabolic profile of insulin-resistant rats as well as their learning and memory behaviours. This attenuation of cognitive impairment coincided with decreased plasma and brain oxidative stress levels and restoration of brain mitochondrial function.

This study indicates that DPP-4 inhibitors, in addition to increasing peripheral insulin sensitivity, also reverse the negative effects of insulin resistance on brain function.

Read the full article in *Journal of Endocrinology* **218** 1–11

JOURNAL OF MOLECULAR ENDOCRINOLOGY

Consequences of melanocortin-4 receptor dimerisation

The melanocortin-4 receptor (MC4R), a G protein-coupled receptor (GPCR), has an important role in hypothalamic energy metabolism, regulating food intake and energy expenditure. Mutations in the MC4R are a common monogenic cause of obesity. As part of the leptin-melanocortin pathway, the MC4R is activated by pro-opiomelanocortin-derived peptides, but also demonstrates ligand-independent activities. Dimerisation (homo- and hetero-) of the receptor has been shown, although the functional consequences of this are unknown.

Piechowski and colleagues have found that the intracellular loop 2 region of the MC4R protein, and adjacent regions of transmembrane helices 3 and 4, are important interfaces for facilitating receptor dimerisation. This region was also important for regulating the receptor's signalling capacity, suggesting a link between dimerisation and signalling activity.

Targeting of the MC4R receptor may prove effective in treatment of obesity, although such compounds have yet to reach clinical use. This study indicates that GPCR dimerisation can influence MC4R activity, suggesting that disruption of dimerisation could be a pharmacological target.

Read the full article in *Journal of Molecular Endocrinology* **51** 109–118

ENDOCRINE-RELATED CANCER

Grade 3 ENETs neuroendocrine tumours

Gastroenteropancreatic neuroendocrine neoplasms (GEP-NEN) are a heterogeneous group of tumours located in the gastrointestinal tract. They can be divided into three groups based on morphological features and mitotic activity. Such classification can be used to predict a tumour's biological behaviour and therapeutic management.

Velayoudom-Cephise *et al.* have reviewed the morphological and clinical features of GEP-NEN with high-proliferative indexes, corresponding to the European Neuroendocrine Tumor Society (ENETS) histological grade G3 tumour type. Data from 28 patients, in this single-centre retrospective study, indicate that these tumours are heterogeneous in their level of differentiation, their diagnostic features and their response to treatment. The authors suggest that a new category of GEP-NEN be created to differentiate between the different tumour characteristics.

This study has implications for the classification and therapeutic management of GEP-NEN, as morphological and functional hetereogeneity between tumours may cause different responses to therapeutic intervention.

Read the full article in *Endocrine-Related Cancer* **2** 649–657

ENDOCRINE HIGHLIGHTS

A summary of papers from around the endocrine community that have got you talking.

FGF21 enters the clinical arena

Fibroblast growth factor (FGF21) is a protein produced in the liver, fat and pancreas that has widespread metabolic actions. It appears to have a pivotal role in metabolic adaptation to fasting and can influence insulin sensitivity, lipid metabolism and energy expenditure. Multiple studies have indicated that exogenous FGF21 administration brings about beneficial metabolic effects in animal model systems.

Gaich and colleagues now report the effects of a proof of concept trial of an FGF21 analogue given for 28 days to obese patients with type 2 diabetes. Treatment produced rapid and significant reductions in low density lipoprotein cholesterol and triglyceride, as well as a significant drop in fasting insulin, coupled with a rise in adiponectin. The effects on body weight and plasma glucose were only very modest. Interestingly, a high proportion of patients developed antibodies to the drug and, although these were not reported to adversely affect pharmacokinetics, one subject did appear to have a severe hypersensitivity reaction.

This was designed to be a small study of short duration and it is much too early to fully define a therapeutic role for FGF21 mimetics but, as more reagents in this class begin to make an appearance in clinical trials, there is certainly more to follow.

Read the full article in *Cell Metabolism* **18** 333–340

First crystal structure of class B GPCRs

G-protein coupled receptors (GPCRs) transduce signals from many external stimuli, including neurotransmitters and hormones and are subdivided into three main classes: A, B and C. The past decade has seen characterisation of the structure of several class A GPCRs, providing mechanistic understanding of their function and aiding drug design. In contrast, structural information regarding class B GPCRs has been limited to the amino-terminal extracellular domain.

Two articles, published concurrently in *Nature* by Hollenstein *et al.* and Siu *et al.*, report the first crystal structures of class B GPCRs. Both describe the structure of the transmembrane domain which transduces extracellular signals into the cell and is the main target for small molecule drugs. Substantial deviation between class A and class B GPCR structures was identified, with a larger extracellular cavity in the class B receptor core. This may explain why identifying small molecule modulators for class B GPCRs has proved difficult.

The characterisation of class B GPCR structures will aid targeted drug design, which could be influential in the treatment of many different disorders, due to the involvement of these receptors in numerous physiological functions.

Read the full articles in *Nature* **499** 438–443 and 444–449

Hot Topics is written by Tony Coll, Karen Featherstone, Paul Foster, Paul Grant and Olympia Koulouri.

CLINICAL ENDOCRINOLOGY

Predicting adverse outcomes in primary hyperparathyroidism

The degree of serum calcium derangement is used along with clinical parameters to determine treatment strategies in primary hyperparathyroidism (PHPT). However, reports suggest that calcium might not have predictive power in terms of long-term consequences in this condition.

This large, population-based cohort study by Yu *et al*. aimed to identify biomarkers that are reliable predictors of adverse outcome in PHPT. Data from more than 2,000 patients who were monitored for up to 10 years were analysed. These showed that baseline PTH is the best predictor of both short and long term outcome. The risk of adverse events was found to be increased when baseline parathyroid hormone (PTH) is higher than 8.5pmol/l, and there was a trend for increased morbidity/mortality with a PTH elevation above 4.9pmol/l. Serum calcium, creatinine and alkaline phosphatase seem to play a role in the short term only.

The authors discuss the limitations of the study, including the lack of data on vitamin D status, and the fact that the observed association between PTH and adverse effects does not necessarily prove causality.

Read the full article in *Clinical Endocrinology* **79** 27–34

ENDOCRINOLOGY, DIABETES & METABOLISM CASE REPORTS

Novel COL1A1 gene mutation in osteogenesis imperfecta

Aftab *et al*. report a case of a 19-year-old girl, who was diagnosed with osteogenesis imperfecta (OI) due to a newly identified mutation of the COL1A1 gene.

Despite her classical clinical presentation with multiple low-impact fractures since childhood and blue sclera on examination, there was a considerable delay in diagnosis. The authors discuss the challenges of diagnosing some cases due to the heterogeneity and mild nature of some of the forms of OI, and stress the importance of raising awareness of this disease, as significant morbidity can be avoided through early identification.

They also discuss different therapeutic strategies, such as lifestyle measures, physiotherapy support, calcium and vitamin D supplementation, and the advantages and disadvantages as well as the paucity of scientific evidence surrounding the use of bisphosphonates. A multidisciplinary approach involving specialists in bone health, audiologists, genetic counsellors and occupational therapists with regular structured follow up is proposed.

Read the full article in *Endocrinology Diabetes & Metabolism Case Reports* 2013 EDM130002

ENDOCRINE CONNECTIONS

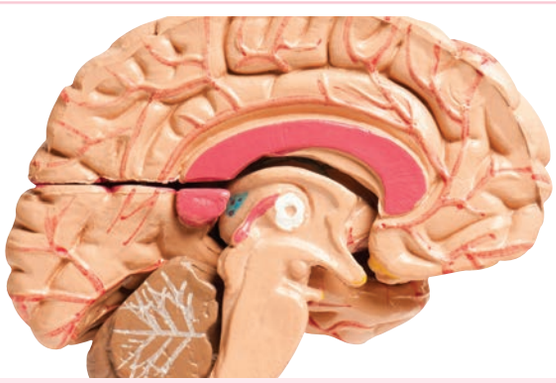
High-throughput assay for steroid quantification

The diagnosis of many endocrine disorders relies on the accurate quantification of hormone concentrations in patient samples. Immunoassays are generally used, but mass spectrometry (MS) enables greater analytical specificity and accuracy. Wider use of MS assays would be promoted by the development of simple, reliable, cost- and labour-efficient techniques.

Methlie and colleagues have developed an automated high-throughput liquid chromatography-tandem mass spectrometry (LC-MS/MS) assay that enables the quantification of androgens and steroids (endogenous and synthetic). The utility of the assay was demonstrated by profiling steroid hormones in women with Addison's disease. The data suggest that women with Addison's disease are particularly androgen-deficient following menopause.

This study describes an LC-MS/MS assay that is suitable for endocrine diagnostic laboratories and research.

Read the full article in *Endocrine Connections* **2** 125–136



GH as a cellular senescence target

Pituitary adenomas proliferate very slowly, and are often clinically observed over decades. Although they exhibit chromosome instability, aneuploidy and epigenetic changes, these tumours very rarely become metastatic. The molecular mechanisms responsible for this indolent growth are poorly understood.

This study by Chesnokova *et al*. identifies growth hormone (GH) as a target for p53-induced senescence in both pituitary and non-pituitary cells. In rat and human pituitary, increased intracrine GH synthesis, as opposed to endocrine GH, is associated with increased senescence and p53 expression. Upregulated GH also protected senescent pituitary cells from apoptosis. Therefore, GH acts as an anti-apoptotic switch for p53-mediated senescence, and this possibly explains the invariably benign nature of these adenomas.

These data suggest that the induction of senescence via increased intracellular GH synthesis may allow pituitary adenomas greater time to evoke DNA damage repair mechanisms, leading to tumour survival. Furthermore, these findings indicate that induced GH may serve as a biomarker for p53-induced tumour senescence.

Read the full article in *Proceedings of the National Academy of Sciences of the USA* **110** E3331–E3339

The adult with congenital adrenal hyperplasia

Congenital adrenal hyperplasia (CAH) is the most common genetic disease in humans. Because of the advent of pharmaceutical preparations of glucocorticoids, and newborn screening since the 1990s, increasing numbers of individuals with CAH are reaching adulthood and experience of their long term management is steadily growing.

Adults with 21-hydroxylase deficiency (21OHD) have a different physiology from patients with Addison's disease or other androgen excess states, and their needs differ from those of young children with 21OHD. These patients suffer from poor health, infertility, characteristic tumours in the adrenal glands and gonads, and consequences of chronic glucocorticoid therapy. Their care is fragmented and inconsistent, and many stop taking their medications out of frustration. This article by Auchus & Arlt, based on the latest research from cohorts of patients with CAH, summarises a holistic approach to their treatment and monitoring strategies.

Read the full article in *Journal of Clinical Endocrinology and Metabolism* **98** 2645–2655

SOCIAL MEDIA: AN INTRODUCTION

WRITTEN BY JENNIE EVANS

We all lead busy lives. With the competing interests of research, seeing patients and teaching, not to mention the ever present weight of administration, is there enough time in the day to engage with the latest social media trends?

In this edition of *The Endocrinologist,* we hope to provide an insight into the opportunities that are out there, and why social media can enrich your research and communications.

WHY SHOULD YOU USE SOCIAL MEDIA?

With the increasing move to online communication, more information about individuals is available online. By actively engaging with social media, you can manage and raise your online profile both within and beyond your research community. This is becoming increasingly important in career development strategies (see page 7) and the way that research is communicated (see page 11).

Social media should be viewed as an integrated part of your research and communication activities, rather than as a discrete activity. When used properly, the benefits can be multiple and unexpected, from vastly increasing your network of contacts (see page 10), to measuring the extent of online discussion about your work (see page 8) and mining for information and advice.

WHAT TYPES SHOULD YOU USE?

The type of social media that is right for you depends on your aims and what fits your lifestyle and interests. Many different platforms are available (see table). Remember, it is better to actively engage through a couple of sites than to set up lots of accounts and never use them.

WHAT SHOULD YOU SHARE?

First, identify your primary aims. Do you want to use social media to discuss your research, communicate with the public, build up your networks or find potential jobs? Tailor the information that you share accordingly. Don't, however, be scared to sometimes venture off topic – personality is important.

To get the most out of social media, you should actively join in conversations. Look out for relevant hashtags to follow, and don't be afraid to ask questions and engage in discussions (see page 7 for tips).

CONNECT WITH THE SOCIETY FOR ENDOCRINOLOGY

facebook.com/SocietyforEndocrinology

twitter.com/Soc_Endo

www.linkedin.com/company/society-for-endocrinology

AND WHAT SHOULD YOU NOT?

Use your common sense. Remember that once something is posted, it can't be taken back – don't post anything you wouldn't want future employers to see. Likewise, commercially sensitive information and anything that risks patient confidentiality are big no-nos (see page 12).

Always read everything back to yourself before posting, and be aware that sarcasm doesn't always translate well in 140 characters. Actively manage your privacy settings on all programmes used. No-one wants to see drunken photos of you dressed as a chicken that your friend kindly posted on Facebook, particularly your boss!

WHAT TONE SHOULD YOU ADOPT?

Try spending some time observing how others use a particular site; look at the way they communicate, the tone they adopt and learn the site's etiquette. You can then start to build your own voice and style. Be yourself – people are far more likely to pay attention to what you have to say if you let your personality shine through.

Remember to listen and engage as well as speak – think of social media as a two-way conversation whereby you can communicate your thoughts and interests, but also listen and learn from the expertise and ideas of others.

Social media are here to stay, and in the next few articles we hope to give an insight into how they can benefit you. Remember you can contact the Society through Twitter, Facebook or LinkedIn – we'd love to hear from you.

JENNIE EVANS
Managing Editor, The Endocrinologist
Twitter: @jennieep

SOME POPULAR SOCIAL MEDIA SITES

Academia.edu www.academia.edu	Platform for academics to share research papers
Facebook www.facebook.com	Social networking service, more popular for personal than professional use
Flickr www.flickr.com	Image- and photo-sharing website
Google+ www.google.com	Part of Google, allows you to create personalised networks
LinkedIn www.linkedin.com	Designed for the business community to build networks of professional contacts and highlight career achievements
Mendeley www.mendeley.com	Reference manager and academic social network
ResearchGate www.researchgate.net	Professional network for scientists and researchers
Twitter www.twitter.com	Microblogging site allowing short messages of 140 characters
Wordpress www.wordpress.com	Popular blogging and content management programme, allowing you to publish your own website

CALLING ALL SCIENTISTS: HOW SOCIAL MEDIA CAN IMPROVE YOUR CAREER PROSPECTS

WRITTEN BY PAUL MACKENZIE-CUMMINS

The social media landscape is constantly evolving. In less than a decade, a plethora of online 'portals' has emerged. Some have undergone reinvention to focus on specific audiences, whilst others have disappeared altogether. Despite stabilisation of a widely recognised bank of mainstay social media channels (Twitter, LinkedIn, Facebook *et al.*), there remains uncertainty as to how scientists can make best use of these sites, not only to share their research, but to boost their career prospects.

Awareness of social media in the research community has been high for some time. Online engagement levels are on the up, as testified by the adoption of sites such as ResearchGate, a 'Facebook' for science, which cites some 2 million scientists as members (out of a global population of about 8 million).

However, awareness of how best to utilise these tools for career advancement is low in comparison with colleagues in the corporate world. Indeed, LinkedIn and Twitter have long been hailed as essential tools for non-scientists seeking jobs – an extension of their CVs. But for scientists and scholars, the benefits have appeared less obvious.

RECRUITING NOW

Science recently highlighted the use of social media as a central part of the recruitment process.[1] An article on how organisations in the chemical, biotech and pharmaceutical sectors recruit staff suggested that scientists should use social media to make them 'much more likely to be approached by someone looking for an expert in a particular field.' In other words, if you have a story to tell, social media will provide you with a voice to reach the right people, in the right way and at the right time.

Take Melissa Terras as an example. Professor Terras, Director of the University College London Centre for Digital Humanities, wrote a well-cited blog post observing the effects of Tweeting and blogging about her own research.[2] She observed a surge in article downloads of both current and older papers which she had published and subsequently self-promoted via social media. But this increase is not the preserve of a small minority of active social media users...

In his 2011 research, Eysenbach asked 'Can Tweets predict citations?' to which he found the answer was an overwhelming 'Yes'.[3] He found highly Tweeted journal articles were 11 times more likely to be highly cited compared with those with minimal or no social media presence.

RAISING YOUR PROFILE

So how can this improve scientists' career prospects? It's a simple matter of communication. Real-world social communications are increasingly influential when employers consider a candidate's application. Facebook, for instance, is a phenomenally powerful and popular social network, but it is a poor relation to Twitter, LinkedIn and – to an increasing extent – ResearchGate in terms of self-promotion for career gain within the scientific community.

Tweeting from conferences to share the latest in cutting-edge research, uploading Tweet-friendly posts signposting a paper to a relevant journal site or blog, and sharing news stories and studies that colleagues may be unaware of can all help scientists position themselves as being at the forefront of their field, whilst simultaneously raising their personal (and professional) profiles.

Although this in itself may not directly lead to a job offer, it does broaden one's appeal, increases online networking opportunities and enhances one's credentials as a scientist – assuming one has something worthwhile to say, of course!

FIRST, DO NO HARM

A recent discussion surrounding a prominent science festival prompted a plethora of criticism from a bevy of members on a leading Listserv mailing list. Whilst arguably justified in voicing their concerns, the escalation of the debate meant those involved risked doing their own personal branding more harm than good. Having passion and strength of conviction is to be encouraged; however, avoid perpetual and irrelevant diatribe at all costs.

Unquestionably, social media channels provide scientists with a voice, allowing them to share information, contribute informed opinions to debates and even shape opinion within their sphere of influence. It is the last which can either make or break your chances of securing your next career move. Indeed, a lack of online presence can limit your visibility and negate your ability to play a meaningful role in online discussions – conversations that can enhance your profile and tip the balance in your favour when you apply for a new position. But there is also a need to err on the side of caution – too much opinion can be detrimental to your career prospects.

Unlike our corporate counterparts, recruiters in academia are unlikely to trawl the internet to ascertain if a candidate is 'suitable'. That said, scientists need to be aware that social media channels can have a dual impact on their career. When done correctly, they will boost your chances of success, but if done without consideration for long-term impact, the journey may be a slow, bumpy ride.

PAUL MACKENZIE-CUMMINS
Twitter: @PaulMacKenzie_C

Paul MacKenzie-Cummins is an award-winning employment and careers writer. His work has appeared in publications including The Guardian, *MSN,* Men's Health, Research Information, *and UKTI's* Springboard *magazine.*

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1. Holgate SA 2013 *Science Careers* http://bit.ly/19UDgqk.

2. Terras M 2012 http://bit.ly/16e5g9z .

3. Eysenbach G 2011 *Journal of Medical Internet Research* **13** e123.

ALTMETRICS: A BETTER MEANS OF MEASURING?

WRITTEN BY KIM MARELLO

Altmetrics (derived from 'alternative metrics') is a new way of measuring the importance of scholarly articles by charting mentions in social media, blog posts and bookmarks. It has become popular as dissatisfaction has grown with more traditional citation-based metrics.

The journal impact factor, still the main metric used to assess impact, ranks journals according to the average number of times articles within them are cited over a period of (usually) 2 or 5 years. Researchers who publish in journals with high impact factors are viewed as more successful. However, a small number of articles often contribute disproportionally to the impact factor, and not all article types attract equal numbers of citations.

Altmetrics take advantage of the online environment of research and associated communication, and the ability to track interactions. They reflect wider social sharing and discussion of work, and include Tweets and blogs, saving of articles to reference manager systems, and links or citations to non-article formats (e.g. datasets). Their value is complementary to journal and individual researcher metrics, such as h-indexes.

Article-level metrics may include examples of altmetrics, but the two are not interchangeable. Article-level metrics apply to individual articles (rather than journals or researchers), and can be either citation-based or non-citation based. The latter, for example a Tweet of an article, would be an altmetric article-level metric.

WHAT ARE THE BENEFITS?

Opinion is divided regarding the benefits of altmetrics.[1,2,3] Altmetrics measure online interactions with research as they happen. Consequently, they are more immediate than traditional citations, and more responsive to peaks of interest. They also attempt to put research into its scholarly context. If a target community doesn't publish much, citations are limited as a measure of success and impact.

Altmetrics allow authors to tell a story around their research. Increasingly, researchers need to justify proposals and results to institutions, funders and peers, and altmetrics provides a tool. For example, measuring blogging and Tweeting activity regarding a recent finding could demonstrate interest in research still awaiting peer-reviewed publication or citations of a published article. Altmetrics can also be used as part of the peer review process itself.

From a reader's perspective, altmetrics can help navigate the ever-increasing amount of information available. Much scholarly output is made available outside journals. Altmetrics provide a useful way of documenting the impact of these datasets, software programmes, figures and presentations.

They also measure non-scholarly interest, such as public or media interest, neither of which is accounted for in traditional metrics. In the UK, REF 14 (which measures return on investment from higher education research funding) includes a section on 'impact', for which altmetrics could provide data.

Publishers too benefit from altmetrics. New journals don't get an impact factor for 2 years and this affects their desirability as a place to publish. Altmetrics offer a way of demonstrating readership and community engagement before an impact factor arrives.

HOW ARE ALTMETRICS COMPILED?

Two of the main methods, adopted by several publishers, are Altmetric (www.altmetric.com) and ImpactStory metrics (www.impactstory.org). Importantly, though, readers don't need the publisher of an article to provide an altmetric tool (although it makes things easier if they do). Anyone can add an Altmetric bookmarklet to their web browser toolbar, or key in a DOI (digital object identifier) and generate an ImpactStory report.

Applications of altmetrics are constantly developing. This summer, ImpactStory announced their 'ImpactStory Profiles', which allow researchers to create a CV powered by altmetrics. The pilot Kudos project is another initiative; this will offer a toolkit to authors to encourage social media promotion of articles in a more standard way.[4]

AND ON THE DOWN SIDE?

Of course, altmetrics have limitations. Who is sharing the work? Is it 50 undergraduates directed to the article by their tutor, or five leading world experts? And who is more valuable to the author? Equally, funders may wish to measure the 'impact' of their funded research differently from the author.

Furthermore, you cannot rank with altmetrics, either in terms of research or researchers. We need to know the context around the metrics to give them value, and one researcher may be much better at promoting their articles in social media than another. The amount of discussion doesn't necessarily reflect the quality of the research – the highly Tweeted may be great, or may be being 'panned'!

Perhaps more pertinently, altmetrics can be manipulated. It's a limitation that affects traditional citation metrics too. It may be that, as we better understand the pros and cons of all the metrics, we will be more able to check the context, or dig deeper into the areas where each metric adds value, and avoid unsupported extrapolations. However, supplementing citation-based metrics with altmetrics will surely give a more complete picture.

It's worth remembering that most standard measures take time to become standard, and need refinement along the way. Altmetrics is probably another of these.

KIM MARELLO
Product Manager, Bioscientifica

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Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard Adverse events should also be reported to the Ipsen Medical Information department on 01753 627777 or medical.information.uk@ipsen.com

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UK/SOM08530 Date of preparation: August 2012

A WHOLE NEW WAY OF NETWORKING: SOCIAL MEDIA AT SCIENCE CONFERENCES

WRITTEN BY PAUL MACKENZIE-CUMMINS & LAURA UDAKIS

Scientists no longer need to rely on the traditional channel of the press release to get their research known and translated for public consumption. Social media bring research into the public domain to be discussed, shared and built upon by other scientists.

Like any popular event, such as a music concert or even a football match, scientific conferences stimulate an ever-increasing amount of social media activity. The use of social media can raise some challenging issues and debate about its value, but it always adds a new dimension to a conference.

DILUTION VS AMPLIFICATION

For some, social media activity at conferences amounts to a proliferation of the rich stream of new data emanating from the speakers' platform. Proponents of this line of thought suggest that the use of Twitter, personal blogs, YouTube, and Flickr do little other than to dilute the impact of the message being communicated. Sharing the message across a multitude of (social media) platforms means it becomes unstructured, which doesn't reflect the physical conference, organised by themes and sessions.

However, one can also argue that social media do not attempt to replicate the physical environment at all, but share the key messages with a wider audience – a process known as 'amplification'.

The term 'amplified conference' is fast entering the lexicon of social media champions of the science world. Simply put, amplification describes extending a conference beyond the conference centre walls, allowing people who are not physically present to participate in the event. This is achieved by using an event-specific Twitter hashtag (e.g. #sfebes14 for the Society BES 2014) to define the online conference space.

A DELEGATE'S VIEW...

Victoria Merriman attends many endocrine-related events each year in her role as Marketing Executive for Bioscientifica, and is an avid user of social media. For Victoria, Twitter is a particularly valuable tool for communication. She comments, 'As a delegate, social media provide me with a unique opportunity to actively support the work presented at conferences and the ability to engage with speakers and delegates alike in a variety of ways.

'From sharing information on some of the latest findings in the field, to identifying areas for further research within our own organisation, and even arranging to meet fellow delegates, social media provide a great way to increase discussion and interaction within the wider scientific community.'

... AND AN ORGANISER'S

It's not just delegates who see the benefits of using social media, so do conference organisers.

'Social media channels are all about driving engagement with an audience and raising awareness of the event itself. They are incredibly powerful at highlighting key research being presented at the conference,' says Liz Brookes, owner of Grapevine Event Management.

'Twitter and Facebook are particularly effective at publicising events and generating interest ahead of the event, whist Twitter is arguably the single most used tool by organisers and delegates alike to disseminate new blog posts to followers.'

In addition, social media come into their own when urgent information needs to be communicated to conference delegates. At this year's ENDO conference in the USA, a gas leak resulted in a certain amount of disruption for delegates. Social media were successfully used to broadcast changes to the programme and event schedule.

ON THE OTHER SIDE OF THE LECTERN...

Speakers too, can benefit from using social media. Addressing a delegate sat in physical attendance is one thing but, by encouraging the use of social media, speakers are able to potentially address a worldwide audience during their presentations. This raises the profile of their work and also facilitates greater engagement between speaker and audience – prompting instant feedback.

...OR THE OTHER SIDE OF THE WORLD

For 'virtual delegates' who may follow the progress of conference sessions from afar there are other advantages.

'Following a conference on Twitter can be really useful – you get a strong sense of the salient points of the presentation,' says Laura Udakis, Communications Manager for the Society for Endocrinology. 'You get a flavour of not only what the speaker is saying, but also the reactions of the audience, who often have their own perspectives to add, very often with helpful links to relevant documents to back up what's being talked about. The downside is that you can lose some of the context or subtleties of the discussions and, of course, being a virtual delegate is only viable if there are enough people Tweeting often enough!'

Whether you are a speaker, delegate, organiser or a virtual attendee, social media can often serve to enrich and enhance your conference and learning experience. Social media will encourage interaction between audience members and speakers, whilst providing the perfect platform from which to communicate new research, stimulate debate, raise awareness and engage with the international community.

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WHY YOU SHOULD RESEARCH BLOG

WRITTEN BY PAUL FOSTER

New communication technology always creates innovative ways to disseminate information. Cuneiform script on clay tablets, ink on papyrus sheets, Gutenberg's movable type printing, the electric telegraph, radio and television have all seen significant leaps in humanity's ability to spread information farther and wider. Indeed, back in 1665, Henry Oldenberg, the first Secretary of the Royal Society, applied the then emerging technology of the printing press to create the first scientific journal and thus improve the dissemination of scientific knowledge, so central to the scientific revolution of the 16th and 17th centuries.

Now, the digital revolution, powerfully supported by the internet, provides almost limitless platforms to spread academic ideas. Therefore, it is surprising that few academics embrace the full power of the internet to disseminate knowledge. Some seem uncertain of the benefits, others dismissive of the potential gain, whilst others are downright terrified by the idea itself, citing loss of intellectual control.

SPREADING KNOWLEDGE AS IT HAPPENS

But, like it or not, science is moving away from the single, formal research article, and into an age where the web will open the workshop windows to disseminate scholarship as it happens. Many academics already share their research data in repositories such as GenBank, Dryad and figshare. They directly challenge the traditional article format by adding blog posts, interactive graphs and video. Novel platforms are appearing that facilitate this 'share early, share often' approach. The journal *Push* (http://push.cwcon.org), for example, lets authors build journal articles incrementally, with each edit tracked and openly available, with comments and collaboration encouraged throughout the process.

Importantly, there has been a significant increase in the number of scholars who use social networking sites such as Twitter to drive informal academic conversations. Web platforms such as blogs, social bookmarks, online reference managers (CiteULike, Connotea, Mendeley) and Twitter provide different, transparent and more comprehensive information about what's hot in scientific circles. It is possible that, during the next decade, researchers will be forced on to these platforms to engage in networking and in an effort not to be left out of important scientific conversations.

For ideas and inspiration here are some great science blogs:

PHARYNGULA
http://scienceblogs.com/pharyngula

THE PANDA'S THUMB
www.pandasthumb.org

RESPECTFUL INSOLENCE
http://scienceblogs.com/insolence

A BLOG AROUND THE CLOCK
http://blogs.scientificamerican.com/a-blog-around-the-clock

THE RESEARCH WHISPERER
http://theresearchwhisperer.wordpress.com

The internet also acts as a novel form of post-publication review, a result of filtering done by specialist authors. For example, when Wikipedia references an article, this has the potential to result in future citations.

REVIEWING PEER REVIEW

These changes are currently driving scientists to re-examine their means of communication, which has directly led to the new field of altmetrics (see page 8). For example, the Science Online conference (http://scienceonline.com) aims to explore science on the web and alternative metrics such as PLoS Article-Level Metrics have been developed. These new tools have not only come about because of the internet. There is a growing belief that the three more traditional filters – peer review, citation counting analysis and journal impact factor – have failed and do not accurately represent the most relevant and significant sources in the context of the explosive growth of academic literature in today's internet age.

One area that has grown significantly in recent years is the science blogosphere. Blogs are becoming a more common method for scientists to disseminate their ideas to other scientists or to the general public. This may be due to incentives for scientists to engage with the public, but it may also be symptomatic of the challenges linked to traditional peer-reviewed channels.

BUILDING A PRESENCE

However, these challenges create a great opportunity. A blog enables scientists to make direct connections to grant funding reviews, other scientific researchers, students and the general public. A blog helps to build a web presence, which helps to raise the profile of that scientist's research goals and methods online. This allows their research to stand out and therefore attract funding, potential researchers, and PhD students. Inevitably, prospective collaborators and employees search the web for researcher names, and coming across a professional looking blog page implies someone who is in touch with the times and willing to embrace new technologies.

So, as scholars we have a unique opportunity to guide the future of how science is disseminated on the web, to benefit ourselves, our community, and the public.

Here's what to do. First, try writing a blog, publish it, share it and then boast about using the new citation metrics. Secondly, take risks. Publishing papers may be safe, but scholars who establish an early presence in the blogosphere will be ahead of the game as this genre, and other web genres, dominate. Finally, confront the desire to acquire the trappings of scientific excellence instead of excellence itself. Publishing articles is just one avenue for making research public and legitimising scholarly excellence. It is time to embrace the internet's power of dissemination and to get the scientific voice heard.

PAUL FOSTER
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Paul Foster is a lecturer at the School for Clinical and Experimental Medicine at the University of Birmingham. He is founder of The Ark Hive (www.the-ark-hive.org), a website dedicated to promoting the debate about the uses of animals in medical research. He has recently set up his own research website, www.drpaulfoster.co.uk.

PROFESSIONALISM AND PITFALLS: SOCIAL MEDIA IN CLINICAL MEDICINE

WRITTEN BY MILES LEVY

As someone in my early 40s, I have always been in the last group to do things the old way, a bit like Indiana Jones rolling under the door in 'Raiders of the Lost Ark'. I was in the last year to take O levels rather than GCSEs, the last lot of junior doctors to do 24-hour on-calls rather than night shifts (able to have a curry whilst holding the bleep), and worked when your next 6-month job depended on your last reference (which was a good quality control).

Between the age of 15 and 42 years, I like all of us have witnessed how the technological revolution has changed the world - history will no doubt judge this era as significant as the industrial revolution; the World Wide Web, the explosion of mobile phone use, the universal use of e-mail and recent arrival of Facebook, Twitter, Instagram, and other daily developments by teenage millionaire techno-geeks – but is this progress for the better?

Just as the industrial revolution has had unintended long-lasting consequences, the technological revolution may be fraught with unpredictable side effects. Clinical medicine is, by nature, a very conservative profession, and there are aspects of the new information-rich world which can provide us with very modern problems.

The fundamental principles of the Hippocratic Oath are to uphold patient confidentiality and do what is in our patients' best interests. Because of the potential conflict between social media and various aspects of clinical life, and because of some instances that have led to complaints, the General Medical Council (GMC) has recently felt obliged to publish guidelines on *Doctors' Use of Social Media* (April 2013).

PROFESSIONALISM

As a medical student and junior doctor in training I have done and said many things that are best lost in the mists of time. The idea that some of my exploits could be indelibly etched in the electronic ether, potentially accessible by patients, colleagues and family members, is something I consider most unattractive.

Nevertheless, there are an increasing number of examples of what would once have been considered 'high jinx' being viewed as unacceptable when judged externally in the cold light of day.

In 2009, a group of doctors and nurses were suspended for taking part in the 'lying down game', where participants took pictures of themselves lying face down on resuscitation trolleys, the ward floor and the ambulance helipad. We may all have similar tales to tell of pranks during training that are better left as memories than incontrovertibly posted online.

BLURRED BOUNDARIES

As well as exposing behaviour that could be construed as unprofessional, the boundaries between personal and professional relationships can be blurred through social media. The Medical Defence Union reported an example of a female GP whose patient discovered what sort of gifts she might like via her Facebook page. We may all have been given gifts by well-meaning patients, and on occasion we will drop our guard and talk about our own lives during a consultation. However, the acceptance of patients as 'friends' on Facebook, or the ability of patients to observe our personal lives without our knowledge, feels wrong and may cross acceptable lines, just as it is inappropriate for us to know about our patients' lives outside the consultation.

DOCTORS' ANONYMITY

Like it or not, doctors are still generally held in high regard by society (though it may not always feel like it). As such, we must accept our responsibility to avoid saying flippant things that could potentially be viewed by millions (after all, 'going viral' now has a non-medical meaning). In 2010, a civil servant posted on Twitter that she was 'struggling with a wine-induced hangover' at work, and posted some comments that were political in nature. Because of her job, the newspapers widely published the comments in a negative light, and a court case found in favour of the newspapers after a legal battle.

As clinicians, any informal, personal or derogatory comments made about patients or colleagues on public internet forums are potentially fair game for complaints. Defamation law can apply to any comments posted on the web in either a personal or a professional capacity, and this can impact on one's own professional image.

The more difficult question is whether, as doctors, we need to be similarly guarded about what we say in our own personal time outside our NHS duties. The GMC got itself into slightly hot water by suggesting that any material written by authors who represent themselves as doctors (even in personal time) should 'identify [themselves] by name'. This led to 4,000 doctors' signatures on a petition to the Department of Health, stating that medics should have the right to express themselves as they see fit, providing patient confidentiality is not compromised.

IN CONCLUSION

So, whilst modern technology has many advantages when used correctly, we are entering slightly intrepid waters filled with potential pitfalls. Whilst much of the GMC guidance on social media is basic common sense, it provides a reasonably sensible framework, and is at least worth a read.

MILES LEVY
Editor, The Endocrinologist

A full copy of the GMC's guidance for doctors can be found at:
www.gmc-uk.org/guidance/ethical_guidance/21186.asp.

FROM THE CHIEF EXECUTIVE'S DESK:
BUILD ON THE PAST, LOOK TO THE FUTURE

WRITTEN BY LEON HEWARD-MILLS

As the year draws to a close and with the shortest day soon upon us, it seems a good time to reflect on the achievements of the past 12 months and also to look ahead to the opportunities and challenges facing us in 2014.

Two of my highlights from 2013 have both had a parliamentary theme. In March, Voice of the Future gave an opportunity to four Society Members in training, supported by Society for Endocrinology Science Committee Member Philippa Saunders, to participate in a House of Commons Committee-style question and answer session. This took place with a panel of MPs and others, including the then Government Chief Scientific Adviser Sir John Beddington, the Minister for Universities and Science David Willetts and the then Shadow Minister for Higher Education and Science Shabana Mahmood, debating a wide range of topics across science and medicine. The Society for Endocrinology representatives gave a good account of themselves, and the level and commitment of debate were inspiring. Full proceedings are available at http://bit.ly/10c45iX.

My second highlight of the year was the sight of a very prominent shadow front bencher (who really should have known better) asking our President-Elect: 'So what exactly is endocrinology?' Fifteen minutes later I don't think that particular politician was in any doubt!

That evident need to engage and to educate links with the theme of the current issue: the role of social media in educating the public, advancing endocrinology – and advancing careers – in a direct and straightforward way. It also links to some of the initiatives that will be occupying the team here in Bristol over the coming year.

During the last six months, we have undertaken a major review of meetings, events and education provided by the Society. I would like to thank those of you who have responded to the various surveys or have taken part in recent committee discussions. One likely outcome of this review, led by Programme Secretary Chris McCabe, will be greater online access to some of the extensive materials the Society has that are currently not easily accessible by Members.

Another initiative revolves around public engagement – a central requirement of the Society. We have been reviewing our online provision to consider how we can provide clear and comprehensive advice and support for patients, as well as how we talk to the public about hormones, and we will be reporting to Council in the New Year.

So, there's plenty to be thinking about as we look towards 2014, and as ever we are reliant on feedback from you, our Members. If you have a comment or a question, please email me at leon.heward-mills@endocrinology.org.

LEON HEWARD-MILLS
Chief Executive, Society for Endocrinology
and Managing Director, Bioscientifica Ltd

‘SCIENCE IS...’

FROM OUR SCIENCE COMMITTEE CORRESPONDENT

Stop shopping. By now you’ve left it too late and all the good stuff has gone. Instead seek solace in those lists made by interesting people with a social life, and discover what you should have been watching, listening to and buying over the last 12 months.

I suspect David Bowie will feature heavily in many. Unless you have yourself just fallen to Earth, it’s hard not to notice that Mr Bowie had an ‘annus mirabilis’ in 2013 – all done, it seems, without him even having to leave the house.

In the snowbound doldrums of early January, up pops a message on his website to say that, after a lengthy period of silence, new material was on the way with a single and video posted online. That morning elegiac snippets of ‘Where are we now?’ drifted out of the *Today* programme and, across the nation, a generation of now middle-aged, ex-teenagers shed tears and felt good about their music and their life. The single topped the UK iTunes Chart by teatime. Gary Kemp from Spandau Ballet called it ‘art’. Heady times.

Events continued apace. The ‘David Bowie is...’ exhibition at the Victoria and Albert Museum enjoyed unprecedented demand, ‘The Next Day’ became the fastest selling album of the year and a Canadian astronaut even became a YouTube sensation by doing a version of ‘Space Oddity’ in the International Space Station.

Rock and roll as a metaphor for science is not new – the abstract as single, the paper as album to be enjoyed in its entirety as a unit, the conference circuit as tour, following time in the studio/lab. More important and informative is to look at how Mr Bowie got to the point where he was able to so nimbly and effortlessly execute this tour de force of social media and technology without trucking across continents in a sweaty bus.

Whilst I don’t recommend all his lifestyle choices for aspiring career scientists, he has left some strong pointers on how to be the most important protagonist in your field. Never let a humble start dictate where you aim to end up. Fall in love with your subject early and absolutely, have bucket loads of self belief and innate talent, and spend time honing your craft. Don’t be put off by early rejection and disappointment, hang around with interesting and slightly bonkers people, engage with the wider world around you and use cutting edge technology in interesting ways. But most importantly of all, irrespective of the response your activity provokes, always, always have something to say.

TONY COLL

GUIDELINES FOR CLINICAL PRACTICE

FROM OUR CLINICAL COMMITTEE CORRESPONDENT

As endocrinologists, we will all encounter patients with rare conditions or more common disorders for which there are few or no randomised-controlled trials of treatment to help guide our clinical management.

The best available evidence typically comes from case series, narrative reviews or consensus from expert committees. Sometimes this information is not easy to access, or is too lengthy to digest, particularly by a non-specialist. While other guidelines may be available, such as the Clinical Practice Guidelines produced by The Endocrine Society, the recommendations may not be directly applicable to our practice in the UK.

One of the roles of the Clinical Committee is to develop new clinical practice guidance and/or endorse other available guidelines for managing patients with endocrine conditions, with the aim of improving the quality of care for our patients. For example, one set of our completed guidelines recommends the approach to be used for an infant or adolescent with a suspected disorder of sex development. We are also working with the National Osteoporosis Society to develop guidelines on vitamin D. Recently, we have developed guidance for managing some endocrine emergencies, such as acute hypercalcaemia, acute hypocalcaemia and pituitary apoplexy, as patients with such problems may not be seen by an endocrinologist at first presentation.

The most recent meeting of the Clinical Committee was at the Royal Society in London. The meeting room walls were hung with portraits of famous scientists and physicians. I wondered whether any of these wise men would have had anything to say about guidelines. Indeed, Charles Darwin once commented, ‘False facts are highly injurious to the progress of science, for they often endure long; but false views, if supported by some evidence, do little harm, for everyone takes a salutary pleasure in proving their falseness.’

So, take a look at the clinical practice guidelines on the Society for Endocrinology’s website at www.endocrinology.org/policy and see what you think. We hope you’ll find these recommendations provide a useful platform from which you can optimise and tailor care for individual patients.

REBECCA REYNOLDS

Current guidelines from the Society for Endocrinology
All are free to download at **www.endocrinology.org/policy**

- Diagnosis and management of hypothyroidism
- Initial evaluation of an infant or adolescent with a suspected disorder of sex development
- Role of androgens in management of sexual problems in men and women
- Management of pituitary apoplexy
- Emergency Endocrine Guidance:
  - Acute hypercalcaemia
  - Acute hypocalcaemia (in adult patients)
  - Pituitary apoplexy

SEDUCTIVE STORIES

WRITTEN BY GARETH LENG

Seahorses, Peruvian poison frogs, shingleback skinks, most birds and many fish all form long-lasting bonds with one, special partner. But, of mammals, prairie voles and humans are rare exceptions for whom lust sometimes turns to enduring love. When prairie voles first meet and mate, in her brain, oxytocin is released, and its effects ensure that her partner becomes special. If an oxytocin antagonist is given into the brain, no bond forms. Meanwhile, in his brain, vasopressin is released, ensuring that he becomes jealous and territorial.

Behind this briefly told tale lies a diverse body of sophisticated empirical evidence that deploys all the power of modern molecular physiology.[1,2]

However, this story of the biology of seduction is itself seductive: it seems to have the power to make fools of people. It has gathered a less reputable bandwagon, in the form of studies using nasal sprays. Oxytocin is important for lactation and childbirth, but once released into the blood it is prevented from entering the brain by the blood-brain barrier. Yet, when people sniff more oxytocin in a few seconds than they normally produce in a month, there may (according to well-hyped studies) be effects that, we are told, recapitulate its role in social attachment; effects which, however slight, we are told are important.

But when we breathe, our cerebral cortex does not flutter in the draught: that's not how the nose works. Inhaling substances gets them to the lungs, and so to the blood. Oxytocin nasal sprays were introduced over 50 years ago to assist childbirth. But it's not only the uterus and mammary gland that have oxytocin receptors – so do the heart, gut, prostate gland, ovaries, penis ... oxytocin will act at all these targets after entering the blood.

Meanwhile, there's no evidence that oxytocin enters the brain via the nose. Of the many papers describing effects of nasal oxytocin on human behaviour, just one has measured oxytocin in cerebrospinal fluid (CSF).[3] After a massive dose, they found a rise in CSF oxytocin so small that, even were it to be replicated, we should wonder whether it reflects endogenous oxytocin release triggered by events at one of the many peripheral targets of oxytocin. In animals, no increase in CSF oxytocin has been described after nasal doses, even doses that exceed the pituitary content by 20-fold.

In 1982, Ang and Jenkins reported a study in dogs to which they administered radiolabelled vasopressin.[4] After intravenous administration, the maximum concentration of radiolabel detected in the CSF was about 0.5% of that in plasma – but when checked by high performance liquid chromatography, none of the label in the CSF reflected intact peptide. Similarly, when given nasally, vasopressin passed readily into the blood, and a tiny amount of label was found in the CSF – none of which reflected intact peptide. The conclusion seemed clear; for vasopressin, there is no special path from nose to brain.

Ang and Jenkins were provoked to perform this study by a flurry of reports that seemed to show that vasopressin specifically influenced memory. This was another seductive story that lacked a coherent mechanistic basis, and it ultimately foundered for lack of replicability; a story, ironically, now largely forgotten.

Today's hubris includes reports of benefits of nasal oxytocin for autism. But this July, a randomised, controlled clinical trial, with a sample much larger than in the previous studies that it contradicts, found no hint of an effect of nasal oxytocin on any of the outcomes evaluated.[5]

That our literature is imperfect is of growing concern. Lately, scientists at Amgen reported their inability to replicate 89% of findings from 53 landmark cancer papers.[6] Recently, the techniques used for measuring oxytocin in human studies have been exposed to devastating criticism,[7] but behavioural studies have had a gentler ride, except for one sharp commentary.[8]

Do our journals chase ephemeral impact and discount diligence? Have we been too kind as reviewers, when we had an obligation to be honest? We have a duty to be sceptical, to demand high standards of proof for unlikely findings of claimed importance. We need evidence not just of apparent effects, but also of mechanism. In the case of nasal oxytocin, we need controls for its peripheral actions. We should expect that primary outcomes be declared ahead of experiments, and data should be available for independent analysis.[8] Even then, we should be cautious, while we await independent replication. The many studies published with nasal oxytocin display a bewildering array of protocols; replication does not appear to be a concern for this genre.

GARETH LENG
Professor of Experimental Physiology and Head of the School of Biomedical Sciences, University of Edinburgh

Gareth Leng is President of the International Federation of Neuroendocrinology, and a Fellow of the Royal Society of Edinburgh.

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WHAT YOU VALUE FROM YOUR SOCIETY: CAREER SUPPORT

A recent survey of you, our Members, revealed the many things you value about your Society.

Importantly, more than half of you said how valuable you found the careers support we provide. At the Society, we realise that your priorities change as your career progresses, and so we support you at every stage.

Student	Career Starter	Career Builder	Mid Career	Late Career	Retirement
Identifying your options Planning your early career Getting an appropriate education	Finding your first job Learning the ropes Spotting your next career milestone	Achieving results and independence Gaining recognition Choosing your specialism Building management experience Looking for advancement	Networking Leading a team Being an expert Considering a new career path Avoiding obsolescence	Maintaining knowledge Assuming a consultative role Taking on management responsibilities Seeking others as experts Preparing for retirement	Passing on knowledge Keeping 'in the loop' Mentoring at your own pace

CAREER-LONG SUPPORT:

Regular updates in endocrinology
FREE access to Society journals
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Influential roles through steering groups, debates and lobbying

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The Society can provide you with the support you need. Speak to one of the Membership Team on +44 (0)1454 642253 or email members@endocrinology.org.

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Membership for 2014 commences on 1 January. If you already have a direct debit subscription set up, there is no need to do anything – your membership will be automatically renewed on 1 January 2014.

If you don't yet have a direct debit subscription, call the Membership Team on +44 (0)1454 642253. To find out more about the benefits of joining the Society for Endocrinology, visit www.endocrinology.org

LOOKING FORWARD TO LIVERPOOL

Society for **Endocrinology**

BES 2014

24-27 March
The ACC Liverpool, UK

The 2014 Society for Endocrinology BES conference takes place in Liverpool on 24–27 March. Here, four attendees tell us what they are looking forward to most.

VIEW FROM THE CHAIR:
CHRIS MCCABE, PROGRAMME SECRETARY

For Society BES 2014, we have continued to evolve the conference: striving for world-leading clinical and basic excellence, whilst meeting our Members' needs and expectations. The programme is broad and multifaceted, just like endocrinology itself.

I'm looking forward most to two things. First, I want to see our newly structured symposia 'in action'. We have shortened these from four talks in 120 minutes to three in 90 minutes. Including a clinical, a translational and a basic talk in each symposium should keep people awake for longer after late nights! And, with any luck, it will stimulate audiences to appreciate that endocrinology only really progresses when we understand the basic, translational and clinical answer to each problem.

Secondly, I'm keen to see our Featured Posters. Poster sessions can be dispiriting. We have all stood lonely and hopeful beside our lovingly rendered pieces of paper, untroubled by passing interest. Building on what we did in 2013, we will add urgency and vibrancy to these sessions. Look out for further details! I'm determined to make poster bearers proud to pin up their presentations, with the full expectation that they will be pestered about them!

A SCIENTIFIC PERSPECTIVE:
TONY COLL

Changing things is what it's all about. In Liverpool, two outstanding scientists who have done just that will appear as plenary lecturers. Bert O'Malley and Ron Evans have been instrumental in defining modern molecular endocrinology and shaping our understanding of the action of steroid hormones. An hour in their company should not be missed by anyone who purports to have even a passing interest in physiology and metabolism.

Elsewhere, the curious scientist has other chances to discover if their opinions can be changed. See if our President Elect, Stephen O'Rahilly, can convincingly present a case against genome wide association studies ever having an impact upon clinical endocrinology. Decide for yourself, after the glucocorticoid symposium, if you think steroids might actually be good for your metabolism. Whilst in the mood for revisionist thinking, rejuvenate your ideas on brown adipose tissue (BAT): no longer just considered nature's cot blanket, but now a potential major player in adult human metabolism. There's even an Applied Physiology Workshop to help you determine the metabolic activity of the BAT in your study subject.

All this in an award-winning moonbase of a venue, set on the waterfront of a vibrant and welcoming city. Makes a refreshing change from cream teas and crocheted doilies.

CLINICAL CONSIDERATIONS:
MILES LEVY

Despite my intention to go to sessions I've circled on my programme, I'll probably do my 'usual' and follow whoever I've been chatting to over lunch or coffee.

Things that catch my eye include the Meet the Expert sessions: a chance to ask burning questions in an intimate environment (always assuming I am metabolically stable at 08.00 after the previous night's activities). The Clinical Management Workshop on Tuesday contains some endocrine chestnuts – the catchy little motto 'How do I do it?' suggests that the session might open with a Gerry and the Pacemakers song! MEN1 on Tuesday afternoon looks good; John Newell-Price will chair it manfully, and Raj Thakker, amongst others, is joining him to perform live.

I might gatecrash the Nurses' Session on Wednesday morning to see what Karim Meeran has to say about Cushing's pitfalls, although Helena Gleeson is chairing a parallel session on young adults, which creates a dilemma. The cardiovascular risk in Turner's, dopamine agonists and cancer survival on Thursday might well make me hang around rather than slope off early. As always, I expect to come back with lots of scribbled clinical gems on a piece of paper that I never look at again.

A YOUNG ENDOCRINOLOGIST'S PERSPECTIVE:
ANGELA ROGERS

Society BES 2014 promises to be yet another good conference. I'm looking forward to the Society's Young Endocrinologists' Prize Lectures on Monday 24 March. These will doubtless be of a high standard, and seeing peers present their research is a valuable learning tool. The lectures are followed by the Young Endocrinologists' Quiz: not only a fun way to end the first day of the conference but also an ideal opportunity to network with fellow Young Endocrinologists and principal investigators – plus supper is included.

I'm certain the Young Endocrinologists' Symposium on Tuesday will make for a stimulating and interactive discussion on interdisciplinary collaborations and peer-to-peer networking, owing to the broad knowledge base and experience of the speakers.

Finally, if none of that were tempting enough, there are nine Plenary Lectures; I'm particularly looking forward to hearing Bruno Allolio discuss adrenocortical tumours. As a Clinician-in-Training, the Meet the Expert sessions are also greatly appreciated.

Don't miss out!

**Join us in Liverpool for Society for Endocrinology BES 2014.
Reduced registration rates are available until 10 February 2014.
Find more information at www.endocrinology.org/meetings/2014/sfebes2014.**

SOCIETY GRANTS YOUR WISHES...

WRITTEN BY SAM MIRCZUK

As a young scientist, either basic or clinical, the main aim is to make your training years as meaningful as possible, in order to achieve your career aspirations. One area you may overlook on your quest to achieve your best as a trainee is the application for funding. As young endocrinologists, we are incredibly fortunate to belong to the Society for Endocrinology, which offers a wide range of grants to its trainee Members.

FROM TWITTER...

Victoria Cabrera **@DrCabreraSharp**
'Today I am the elated recipient of a @Soc_Endo Early Career Grant. So excited! Has come at such an important time for me career wise. #YE's'

D.Lee Hamilton **@dlhamilton82**
'I would recommend any new investigators out there to join @Soc_Endo If your work is aligned to endo they have an outstanding set of grants'

Benjamin Palmer **@BenForScience**
'Over the moon to hear I've been successfully awarded a summer studentship by @Soc_Endo!'

Is one of your goals to present your data at a national or international conference, and to have the opportunity to network with experts in your field? Then apply for one of the Society's **Conference Grants**. In addition, **Practical Skills Grants** and **Clinical Department Visit Grants** provide superb opportunities for trainees to visit other labs or attend workshops to learn new techniques or skills, or to visit clinical departments to see how endocrinology is practised in different settings.

You can assist an eager undergraduate to apply for a **Summer Studentship.** This will not only help your project progress, but also allow you to develop your supervision skills, at the same time as providing the undergraduate with important hands-on experience in a lab. Why not also encourage the undergraduate to apply for a **free place at the Society BES meeting?**

The Society's **Sponsored Seminar** and **Public Engagement Grants** will help expand your skills in organisation, leadership and communication. In addition, they also give fellow researchers and the public the chance to learn about the wonderful work that is currently being carried out in endocrinology.

If you are looking to obtain pilot data for future awards, apply for the Society's **Early Career Grant**, which provides a generous amount of money (up to £10,000) to get those all-important results. Need some advice on how to put a grant application together, or the chance to pitch your idea? Attend the **Career Development Workshops**, designed to nurture your skills to get you the grant you need.

Applying for your own funding not only enables you to develop key transferable skills that will help you achieve your career goals, but also gives you the chance to include a record of securing your own money on your CV. Furthermore, getting that funding (whether for travel to the Society BES meeting or in the form of an Early Career Grant), combined with your publications in peer reviewed journals, will give you the satisfaction of looking back on your training years and thinking 'YES, I made the most of it!'

SAM MIRCZUK

Sam Mirczuk is Chair of the Young Endocrinologists' Steering Group and a Post-doctoral Research Associate in the Endocrine Signalling Group at the Royal Veterinary College, London.

'It made me see another side to medicine that I hadn't thought of before.'
ATTENDEE AT AN EVENT
SUPPORTED BY A PUBLIC ENGAGEMENT GRANT

'The intense scientific environment opened my mind to different ways in which I can advance my project and allow the growth of my research.'
SUSAN JALICY (DUNDEE),
PRACTICAL SKILLS GRANT RECIPIENT

'The support we received from the Society for Endocrinology ... and the extremely valuable advice and help from ... its staff contributed substantially to the success of this event and we are very, very grateful for this.'
NIKI KARAVITAKI (OXFORD),
PUBLIC ENGAGEMENT GRANT RECIPIENT

'It gave better insight into the science profession, which I hope to be a part of in the future.'
WIKTORIA WYRZYKOWSKA (EDINBURGH),
SUMMER STUDENTSHIP RECIPIENT

YOUR GUIDE TO SOCIETY GRANTS AND PRIZES

Applicants need to meet specific eligibility criteria. For full details see www.endocrinology.org/grants.

UNDERGRADUATES		Next Deadline
Summer Studentships	**Up to £1,850 plus £1,000 consumables** to help you gain research experience	14 March 2014
Undergraduate Essay Prize	**£1,000 (1st prize) or £250 (up to 6 prizes for runners up)** to recognise outstanding academic merit	11 February 2014
Undergraduate Achievement Awards	**£300 for each year for 3 years** to an institutional department to encourage excellence in endocrine study	16 June–14 July 2014
UNSPECIALISED SCIENTISTS AND TRAINEES		
Free places at Society for Endocrinology BES	**Package worth up to £750** for clinician, scientist and nurse trainees to attend the meeting	2015
EARLY-CAREER MEMBERS		
Early Career Grants	**Up to £10,000** to progress your career	27 May, 27 November 2014
Practical Skills Grants	**Up to £2,000** for lab or workshop visits to gain skills or perform experiments	Apply year-round
Clinical Department Visit Grants	**Up to £2,000** to see endocrinology practised in a different setting	Apply year-round
Standing up for Science Media Workshops	**Workshop plus up to £200 travel** to encourage active involvement in public debates on science	Check www.endocrinology.org
Young Endocrinologists' Prize Lectureships	**£2,500 each** to recognise your contribution to endocrinology	2015
Prizes at Society BES Meetings	**£500 (winners) or £100 (highly commended)** to recognise high quality oral and poster communications	Selected from submitted abstracts
Prizes at Society Clinical Cases Meetings	**£250/£150 (oral) or £100 (poster presentation)** to recognise high quality communications	Selected from submitted abstracts
ALL MEMBERS		
Conference Grants	**Up to £500 (UK meeting) or £850 (overseas meeting)** to support conference attendance	15 April, 15 August, 15 December 2014
Sponsored Seminar Grants	**Up to £3,000** to fund seminars to raise awareness of endocrinology	Apply year-round
Public Engagement Grants	**Up to £1,000** for outreach activities to communicate endocrinology to the public	Apply year-round
SUPPORT GROUPS AND CHARITIES		
Patient Support Grants	**Up to £4,000** to assist the work of small charities and patient groups	Check www.endocrinology.org

NEW! SOCIETY FOR ENDOCRINOLOGY JOURNAL AWARDS

The Society is pleased to announce the introduction of these new annual awards. The inaugural Society for Endocrinology Journal Awards will be presented at Society BES 2014 in Liverpool. They will be given to the authors of the best papers across five of the Society's official journals, *Journal of Endocrinology, Journal of Molecular Endocrinology, Endocrine-Related Cancer, Clinical Endocrinology* and *Endocrine Connections.*

The awards will recognise excellence in endocrine research and practice and the authors' contribution to the wider field of biomedical and biological sciences. There is an enormous amount to celebrate, with outstanding work performed around the world. The papers we publish are testament to quality, dedication and innovation in service to the specialty.

The winning presentations will be pre-selected by the journals' Senior Editors and Editors-in-Chief before being ranked by a panel based on a number of criteria, including:

- originality
- scientific content
- presentation
- contribution to the field

Please join us at the Society for Endocrinology BES conference dinner, where the awards will be made to the presenting authors.

SPELLBOUND: FROM WITCHCRAFT TO GIANTS

Society-sponsored stand at Cheltenham Science Festival

Since we've been handing them out, the Society's Public Engagement Grants have had some pretty weird and wonderful proposals, from dispelling Nigerian folklore around goitre and witchcraft to interactive stalls on growth hormone. All we can say is ... keep 'em coming!

Engaging with the public is building in popularity. It puts your work into perspective and helps you to answer that tricky 'impact statement', whilst at the same time raising the profile of science and medicine.

Public engagement is an increasingly important aspect of a researcher's work. After all, science is a collaborative process, and so educating the general public on your topic of choice may help both you and your audience learn something. How's that for impact?

So, no matter how wacky your idea may seem, if you can think of an activity that inspires and excites people about an endocrinology-related topic, get in touch! We can provide you with up to £1,000 to get your project off the ground. We're always ready to provide advice and guidance on developing your project, and can help with any promotional work.

EARLY INSIGHTS INTO ENDOCRINOLOGY

The Society is dedicated to attracting talented and enthusiastic trainees into the discipline and providing opportunities for them to develop a greater understanding and interest in endocrinology.

For those who wish to develop their writing skills, our Undergraduate Essay Prize provides the perfect opportunity for students to flex their literary muscles and convey the wonder of endocrinology to a lay audience, whilst increasing their knowledge and profile in the process. The 2014 deadline is **11 February**, and with a top prize of £1,000, we expect to have some fascinating reads ahead.

Our highly regarded Summer Studentship scheme provides funding for an undergraduate to work in a lab over the summer. This gives the student vital experience of research and scientific method, a boosted CV and the opportunity to learn more about their career options. The 2014 application deadline is **14 March.**

Encourage your undergraduates to apply for these opportunities today!

Attendees enjoy a Society Sponsored Seminar session

To find out more about any of the Society's grant schemes, visit **www.endocrinology.org/grants** email us at **grants@endocrinology.org** or call **+44(0)1454 642200**

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OPEN ACCESS

MY MOST MEMORABLE PATIENT

WRITTEN BY SONDRA GORRICK

Endocrine nurses carry out a range of specialist tasks and can make a huge difference to patients' experiences and treatment. Here, Sondra Gorrick discusses her work with one of her most memorabe patients and how her role allowed her to provide continuity of care to contribute to his ongoing treatment. We also hear from the patient on his experience and the difference that his endocrine specialist nurse made to him.

THE NURSE'S VIEWPOINT

I first met LB, then in his late forties, 16 years ago when he was transferred to our care. He has a diagnosis of congenital adrenal hyperplasia and is on steroids. He is an articulate, contemplative man, who likes to be well-informed. His medical history noted ambiguous genitalia, with the presence of a Y chromosome, and he had been assigned male gender at birth. However, at the age of 6 he started menstruating and subsequently had a bilateral oophrectomy. His parents chose to continue to raise him as male and the issue was never discussed with him.

During his twenties he met and married his wife. Again his family chose not to discuss his medical history with him. Thus, when we met, he had little understanding of his condition. During early clinic visits I discussed his steroid replacement but we did not discuss other issues.

With the increasing availability of information in the media, LB began to ask questions and the issue of chromosomes and gender was tentatively discussed. Over a period of months, LB saw his GP, the consultant and me on a regular basis. He was very distressed and requested more time to sit with me to talk through his feelings and to ask questions. It soon became apparent that he was only able to talk this through with a limited number of trusted people. With the aid of earlier case notes, I could fill in some gaps in the information and alleviate some worries, for instance, to assure him of the legality of his marriage.

'His family chose not to discuss his medical history with him. Thus, when we met, he had little understanding of his condition'

Initially LB went through all five stages of grief: denial, anger, bargaining, depression and acceptance. Some were expressed together and some, especially anger, for longer periods than others. LB told me that were it not for the support from the primary and secondary healthcare team and his wife he would not have made it through his turmoil. His wife was also traumatised and attended one or two of his clinic appointments to gain insight herself. LB's mother still found it very difficult to talk to him about it, and this apparent lack of support put a strain on their relationship for some time.

LB found coming to the out-patient clinical area traumatic, worrying that someone would start asking him questions in the waiting area. He also asked for longer consultations. It was agreed to stop normal clinic appointments and to give him longer time slots through my day unit. Thus he could have a joint consultation with me and the consultant, with further time with me alone if needed. We arranged for him to talk to a paediatrician about current management of children with this condition and to talk through some of his own issues, and I accompanied him to see a specialist psychiatrist in London.

LB has often expressed deep concerns that his early life issues should remain private and only be discussed on a 'need to know' basis. With LB's permission, his consultant and I met with the manager of our health records library. We are moving towards electronic notes and it was agreed that LB's earlier records would be scanned and the paper copies destroyed. The electronic notes have been locked and can only be accessed by his consultant, me and the head of health records. LB has been to the records library and met with the head of department. He is aware that in the future if any of us leave or retire, access will transfer to our replacements.

We plan to continue with 6-monthly reviews by his specialist consultant and specialist nurse. We have introduced him to the consultant who will take over his care when his current consultant retires and he has also met my colleague Kathy who often takes his blood samples. Indeed, during my recent sickness absence, LB allowed Kathy to sit in on his consultation.

'I feel honoured that, as a member of the team, I have played a part in helping LB to come to terms with his issues'

The consultant and I have worked together for many years and have a good, strong working relationship. This helped us to support each other during a period of 2 years when LB expressed complex emotions.

I am glad that as a specialist nurse I am able to give time to patients with such complex issues. I feel honoured that, as a member of the team, I have played a part in helping LB to come to terms with his issues and to forgive those well-intentioned people who withheld this information for so long.

SONDRA GORRICK
Endocrine Specialist Nurse

LB WRITES:

When I was asked to write a piece for this article, I was asked to write about my feelings. Over the years I have had a whole range of feelings and emotions, from bewilderment, fear, embarrassment, bereavement, anger, to overwhelming feelings regarding the question of what had happened to me and who I was. Finally I have come to acceptance and wish to help other people in the same position as me.

'What mattered the most was the time that I was given to talk and get my emotions in some sort of order, and to get my head around it all'

I feel the medical profession has found my predicament very hard to deal with. A very eminent professor told me that he felt 'he had let me down'. I had no idea what he was talking about at the time, as it was not until I was 47 that I actually learnt what my problem was from the media. In those few moments, my gender had changed, as indeed had my sexuality, and according to the programme I was a freak. At that time I had been married for 16 years and I felt a great sense of panic, as I did not want my wife to learn from the media what had happened to me. In addition, my 'medic alert' stated my condition.

'Her hug at the end of our session ... gave me the strength to carry on and to know that things would get better'

All credit to my wife, we stayed together, but the next 3 years were awful. All I could do was cry. I experienced a bereavement of myself, which at the time I did not understand. I needed someone I could talk to; the sadness I felt was awful.

Enter my specialist nurse. She gave me some counselling over a period of time and it didn't matter if I was angry or in floods of tears, she just was there for me. She was so important to me. From my point of view, what mattered the most was the time that I was given to talk and get my emotions in some sort of order, and to get my head around it all.

I understand how busy you all are, but at the time my doctor would have 15-minute appointments with me, and I simply could not say what I needed to say in the amount of time we had. Fortunately, I have now been given more time for my clinical appointments.

The other thing that meant the world to me was her hug at the end of our session. At the time I felt completely unlovable, and that hug gave me the strength to carry on and to know that things would get better given time.

My wife and I have now been together for 26 years and were very lucky to find each other and stay together, all due in no small part to my specialist nurse.

NIKKI KIEFFER NURSE COMMITTEE CHAIR

It was lovely to see so many of you in Stratford upon Avon in September at the Endocrine Nurse Update. Judging by the feedback, it was another successful meeting. We are pleased that so many of you were able to attend. I would like to thank all our speakers once again for their valuable contributions in making this such a good meeting.

In this issue, Sondra shares her care of one of her patients, and we are also privileged to hear the patient's thoughts and feelings about the care he has received. Pieces like this show how an endocrine nurse plays a role in supporting people, and can act as a guide to us all in dealing with our own patients. Please consider writing a piece about your work for future issues of *The Endocrinologist* to share with your colleagues around the country. It is always useful to read how others deal with things. It can often save the wheel being re-invented!

This is my last editorial for the nurses' page as my term of office as Chair of the Nurse Committee finishes at the end of December. I would like to take the opportunity to thank you all for the support you have shown over the years to me and my colleagues on the Committee.

I am pleased to tell you that Lisa Shepherd (who has been my excellent Vice-Chair) will be taking over as Chair in January. She will be well supported by Jean Munday as Vice-Chair. I wish them both good luck and hope they enjoy their time in office as much as I have. Please continue to show them your support.

NIKKI KIEFFER

CONGRATULATIONS

Congratulations to Kathy Powell (Norwich) who received her Society for Endocrinology Certificate of Adult Endocrine Nursing at the recent Endocrine Nurse Update. The Certificate of Adult Endocrine Nursing recognises nurses who promote good practice in patient care and clinical management and have worked on their development as endocrine nurses. More information on the scheme can be found at www.endocrinology.org/endocrinenurse.

ESE SUMMER SCHOOL 2013

In July 2013, I attended the European Society of Endocrinology (ESE) Summer School in Bregenz, Austria. Young researchers (basic scientists and clinicians alike) had the chance to gather for an intensive programme of interactive sessions covering many areas of endocrinology.

Lecture topics included sarcopenia, thyroid disease and brown adipose tissue, from both basic science and clinical perspectives. Typically, an in-depth introduction was followed by presentation of new data and discussion of current issues. Interaction between the lecturers and young endocrinologists was encouraged, with time for questions after each lecture.

Those presenting posters were asked to describe their work for 3 minutes, followed by questions. This was an excellent opportunity to practise presenting skills and get feedback in a supportive environment. The posters presenters ranged from new PhD students setting out their plans to experienced post-docs presenting new data.

Young researchers were encouraged to meet others from different institutions, to discuss research, share knowledge and, hopefully, inspire future collaborations. The committee did an excellent job of arranging sports and social sessions which included everyone. The setting was ideal, as the conference venue, a beautiful monastery, was right next to Lake Constance and it was even warm enough to swim!

I would thoroughly recommend future ESE Summer Schools.

Ruth Morgan
University of Edinburgh

To find out more see www.ese-hormones.org/education/basicscience.aspx.

OBESITY UPDATE 2014

The Association of Physicians Specialising in Obesity (APSO-UK), supported by the Society for Endocrinology, is delighted to announce their first joint meeting with the American Association of Bariatric Physicians.

Obesity Update 2014 will take place at the Royal College of Physicians in London on 13 January 2014. Discussions will include development of obesity services, novel treatments and case studies in complex obesity and medical complications of bariatric surgery. Prizes will be awarded for best submitted abstracts. Please register at www.obesityupdate.org.

ADDISON'S INFORMATION PACKS

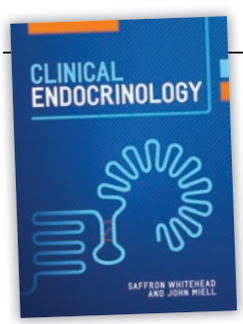
The Addison's Disease Self Help Group (ADSHG) now has out-patient information packs available for clinics to purchase. These packs include ten copies of all their medical leaflets plus two copies of some wall charts, for use in endocrine out-patient clinics. You can buy packs at www.addisons.org.uk/comms/donate/page4.html.

The ADSHG website also provides all the Medical Lectures from 2004 to 2012 to download free of charge. These lectures cover a range of topics related to adrenal insufficiency from leading researchers in the field and can be found at www.addisons.org.uk/topics/2011/09/0041.html.

REVIEW

CLINICAL ENDOCRINOLOGY

Saffron Whitehead & John Miell, Scion Publishing, 2012, 480pp (Pbk), ISBN 9781904842859



The clinical side of endocrinology is a fantastic occupation. The collision of science, hormonal dysfunction and its translation into patient care can be both challenging and rewarding. Endocrine problems are common and diverse and can often require a fair amount of detective work to reach a diagnosis and pursue a successful management strategy. None of this can be achieved without a firm grounding in the physiology and biochemical dynamics of hormone action.

Step forward *Clinical Endocrinology*, a textbook which has a shared authorship between a scientist and a senior clinician, and which aims to relate the basic science to clinical medicine in a clear and practical manner. This book is aimed at a spectrum from undergraduate medical students through to higher specialist trainees in endocrinology and has a lot to offer. It begins with an overview of the principles of endocrinology, how hormones are synthesised and receptor mechanisms, and explains feedback control in the endocrine system, as well as autoimmunity. It ties this all together so that we can develop more of an understanding of how to reach a clinical diagnosis.

There then follow chapters on each of the major endocrine organs. The book takes a case-based approach, describing the clinical presentation of a particular problem, be it primary hyperparathyroidism or phaeochromocytoma, and then relating this to basic anatomy, embryology (dredging up distant memories from medical school) and physiology as a basis for understanding the disease and its clinical features. Clinical management and investigation then seamlessly follow.

I found the section on the adrenal glands to be extremely well done. There was an excellent progression through the basic science and the very clinically relevant (and often difficult to remember in outpatients) steroid synthesis pathway, the major biological actions of cortisol, and information about glucocorticoid receptors and genomic regulation. We then move on to Cushing's syndrome and its various causes, and the challenge of establishing a diagnosis. Also covered are adrenal malignancies, adrenocortical failure and other weird and wonderful diseases.

Each chapter is followed by a decent selection of self-assessment questions (I did fairly well) to test one's understanding and the application of the information.

The final section of the book then covers all the rest of the things we see in clinical practice which don't fit neatly into a discrete organ system - endocrinology beyond the 'classical'. For example, there is an enlightening look at circadian rhythms, the functions of the poor forgotten pineal gland (tucked away as it is at the back of the brain), the endocrinology of adipose tissue (an important metabolic entity in itself), the hormonal functions of the gut, and a look at the endocrine functions of the heart, kidneys and bone. These 'extra' bits of the human body don't always receive direct attention because they have other roles, but they play an important part in the synthesis and secretion of hormones that regulate diverse functions, and we would certainly fall over without them.

All in all this is an excellent, essential textbook which does the job admirably in terms of synthesising the essence of human physiology and excreting a patient-centred approach to addressing the clinical manifestations of endocrine hypo- and hyper-function.

PAUL GRANT
Consultant Endocrinologist, St Thomas' Hospital, London

TOLVAPTAN: TURNING THE TIDE ON HYPONATRAEMIA

WRITTEN BY PAUL GRANT & CAROL POSTLETHWAITE

Hyponatraemia (sodium <130mmol/l) is a common clinical problem. The features of low sodium are mainly neurological and, in extreme situations, seizures may result. It is also a predictor of death amongst patients with liver cirrhosis and chronic heart failure.

The syndrome of inappropriate anti-diuretic hormone (SIADH) is a well-recognised cause of hyponatraemia, and the standard treatment is to tackle the precipitant, and to severely restrict the patient's fluid intake to 500–1,000ml/day. Fluid restriction is an unrealistic long term strategy for many patients, which is where medication may have a role.

Demeclocycline (a tetracycline antibiotic) is licensed for use in the treatment of SIADH. It is normally restricted to the setting of advanced malignancy. It causes a form of nephrogenic diabetes insipidus, but has a slow onset of action (7–14 days) and this often makes it unsuitable for hospital use, especially when the hyponatraemia is having a detrimental effect.

ISSUES WITH ADH ANTAGONISM

ADH (anti-diuretic hormone, also known as arginine vasopressin, AVP) is of central importance in the control of salt and water balance, and it has long been thought that developing ADH antagonists might be a good way to approach the pharmacological treatment of SIADH. Manning and Sawyer first designed peptide antagonists of AVP in the 1970s. By modifying the potent antidiuretic peptide desmopressin, a selective V2 receptor agonist, they successfully synthesised many vasopressin analogues that blocked the antidiuretic response of AVP *in vivo*.

However, many V2 receptor antagonists tested in humans paradoxically exhibited weak V2 receptor agonism rather than antagonising the antidiuretic effects of AVP. This marked variation between species may be related to differences in kidney prostaglandin activity in humans. Poor oral bioavailability and short biological half-life also limited the drugs' development as clinically useful agents.

With the cloning and sequencing of the receptors to which AVP binds, agents that can more directly antagonise the effects of the hormone at its receptors have been developed. In 1992, Yamamura and colleagues characterised the first non-peptide V2 receptor antagonist, OPC-31260. This was discovered via a series of structural conversions of OPC-21268, an AVP V1A receptor antagonist. *In vitro* studies showed that non-peptide V2 receptor antagonists inhibit binding of AVP to V2 receptors. Such agents demonstrated high affinity in rat kidneys. They interacted reversibly and competitively, dose-dependently displacing AVP radioligand binding in rodent medullary membranes.

AQUARESIS VS DIURESIS

Yatsu later demonstrated increased free water excretion without increasing urinary excretion of electrolytes in the normally hydrated conscious dog. The drugs were clearly 'aquaretic' as opposed to those such as frusemide which are 'diuretic' or 'saluretic' and cause urinary NaCl loss to a much greater extent. Interestingly, in dogs with pacing-induced congestive heart failure, the combined V1A and V2 AVP receptor antagonist YM-087 not only increased free water clearance, but also increased cardiac output and decreased left ventricular end-diastolic pressure and total peripheral vascular resistance.

In 1993, Ohnishi administered intravenous OPC-31260 to euvolaemic human volunteers and demonstrated that it induced a water diuresis without altering urinary sodium, potassium or blood pressure. Shimizu and colleagues demonstrated that intravenous OPC-31260 caused a dose-dependent aquaresis in normal human subjects under water restriction. Even in this mildly volume contracted group of subjects, no significant changes in blood pressure or heart rate were reported.

ENTER THE 'VAPTANS'

These clinical studies have demonstrated the ability to safely induce free water excretion using non-peptide AVP V2 receptor antagonists in both normally hydrated and mildly volume-depleted humans. These discoveries of non-peptide AVP blockers ultimately led to a new class of medication, the 'Vaptan' drugs, which act by inhibiting the action of vasopressin on its receptors (V_{1A}, V_{1B} and V_2).

Potential problems with the use of vaptans include thirst/dry mouth and polyuria due to excessive aquaresis, and there is the risk of over-rapid correction of sodium levels. They are relatively expensive medications, but could potentially lead to a reduction in length of hospital stays, which might make economic sense. Currently, clinical experience is limited, and endocrinologists are working out the appropriate role of these agents in the management of hyponatraemic patients.

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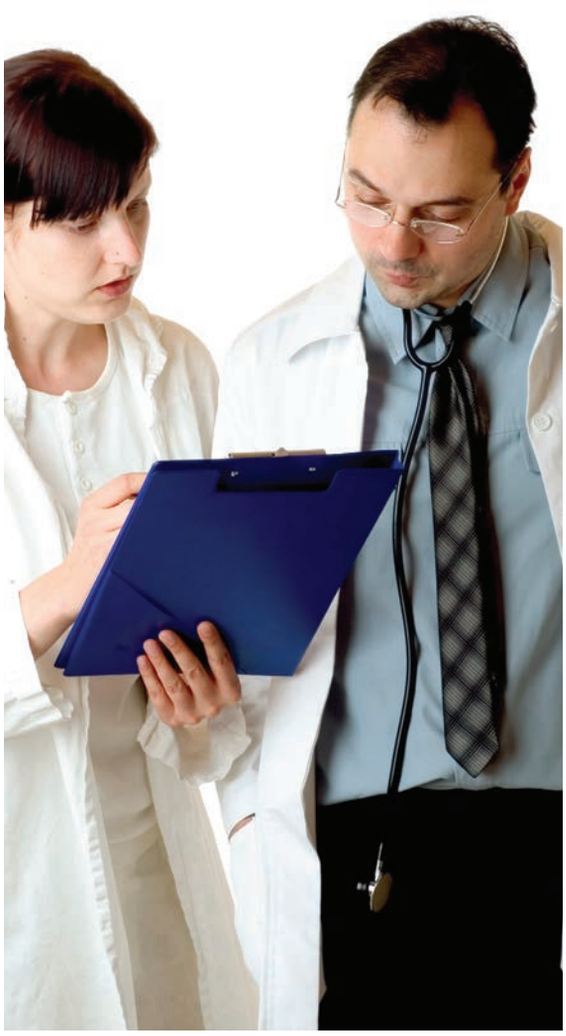
HOW TO GET YOUR WORK PUBLISHED: YOUR GUIDE TO JOURNAL PUBLICATION

WRITTEN BY ADRIAN JL CLARK & LINDSAY FLOOK

So, having carefully followed the guidance in the last issue of *The Endocrinologist*, you have eventually submitted your paper. Go and have a beer or two and cross your fingers. It probably seems that nothing much is going to happen over the next few weeks after all the frenzy of getting the figures exactly right and incorporating those last minute changes by that middle author.



Meanwhile, at the journal, the clock has started ticking and a great deal has to be done rather efficiently if it is going to achieve the sort of service you expect. In this short article, we will try and summarise what happens to your paper from this point onwards. All journals are slightly different, and the steps that we will describe are based on those used by *Journal of Endocrinology* and *Journal of Molecular Endocrinology*, but are pretty typical of most modern peer-reviewed publications.

EDITORIAL ALLOCATION

Every one of the new submissions received each day needs to be checked for completeness. For example, are all the figures and supplementary data there, is the format correct, and ... is the subject area appropriate for the journal? We immediately reject several papers each week, simply because authors haven't checked the remit of the journal and have submitted perfectly good, but completely inappropriate, manuscripts.

At this stage, the author declarations are also checked. These confirm that the work is original and has not been submitted elsewhere. Sadly, there are many examples in which authors have either resubmitted earlier work or submitted the same paper to two journals. This can be difficult to detect, but a proportion of papers will be tested by CrossCheck, a widely used plagiarism detection tool.

Assuming these administrative hurdles are passed, the manuscript now moves into the review phase. As endocrinology is a broad subject area, we find it most efficient to employ a subspecialty senior Editorial Board (see http://bit.ly/1cZTa64). Your manuscript will be assigned to an Editor whose background is appropriate for the topic. Editors are experts in the field who will hold the reins of your paper as it progresses through peer review. Importantly, he or she will select your reviewers and make the ultimate recommendation to the Editor-in-Chief.

PEER REVIEWER SELECTION

Typically the Editor will have a quick read of your paper and identify several potential reviewers with appropriate interests. This list may include one or two of your suggested reviewers – assuming they have no conflict of interest. In general, I prefer that at least one reviewer is not from your suggested list. Perhaps surprisingly, author-nominated reviewers are often the harshest. Invitations, asking for a critique within 14 days, are sent usually to between two and four reviewers.

RECOMMENDATIONS AND DECISIONS

Reviewers will provide the written critique that you, the author, will ultimately see, as well as confidential comments to the Editor, such as the minimum requirement for acceptance, a view on the significance of the paper, and a numerical rating of the quality and importance of the work.

TOP TIPS

1. Ensure the target journal is appropriate for your work.
2. Take great care with writing style, grammar, spelling and overall format.
3. Reviewer comments, even if you don't like them, are usually intended to help you improve the work.
4. Take reviewer comments seriously and respond to all of them clearly.
5. Sadly, most papers get rejected, so don't despair if yours is. It will be published eventually.

The Editor's job is to integrate the reviewer comments and to make a recommendation to the Editor-in-Chief. Often this is straightforward, as reviewers generally agree over the quality of papers. On occasions, the reviewer comments may need some interpretation for the authors and the Editor will provide this. Reviewer comments will almost always be fed back in their entirety to authors.

The final stage of the process lies with the Editor-in-Chief, who will consider the overall journal interests, as well as trying to balance the inevitable variations in selectivity between senior editors, to make the final decision. Sadly, for most quality journals the decision is usually to reject the manuscript. Immediate acceptance almost never occurs. Papers that the journal would like to publish usually require additional attention. This might be as minimal as correcting typos and adjusting a few sentences or references, or involve additional experiments. In the latter case, the journal usually tries to be practical, and if the extra work is too extensive the paper is more likely to be rejected.

RESPONDING TO REVIEWS

Your email pings with a message with a subject line such as 'Decision on manuscript no. 1234 ...'. The first paragraph tells you the news you've been waiting for. Don't be disheartened if it is an apologetic rejection letter. Most submissions will get this email, and even the best scientists in the country will be thoroughly familiar with rejection letters. Keep reading until you come to the reviewer comments. Even if you've been rejected, these should be valuable feedback on your work that should allow you to refine it for the next submission.

A common response is anger at the 'stupidity' of the reviewers or editors, but don't immediately bang off an angry email. Go and think about the comments for a few days. Share them with co-authors. Assuming that you still plan to publish the work by submitting it to another journal, you should be planning to modify your manuscript in the light of these comments. Sometimes reviewers have misunderstood an aspect of the work. If so, the next version should be clearer to avoid a recurrence.

It is only worth writing to the Editor if you feel there has been a genuine flaw in the review process, e.g. a reviewer who shows no understanding of a key technical issue or of the underlying research area. In such cases the Editor may well agree with you and seek an alternative review, though this will delay the paper.

The response you want, however, is the one that says your paper may be acceptable if you can respond to a number of reviewer comments. Read these very carefully – then read them again and again. Note that *all* the points need addressing; don't try and be selective and think that if you answer a few you will be OK. If doing some further experimental work is essential, just get on and do it. Occasionally, a request for additional work is technically or organisationally impossible. If so, clarify with the Editor what would be required. You will have a limited time to respond.

Having marshalled your responses and any new data, draft your rebuttal statement. Be polite without being sycophantic. Then make the changes to the paper that you say you will. When you and your co-authors are really happy with your changes re-submit the manuscript. A single round of re-review is usual, but not invariable. Usually, if you haven't got it right at this stage you will be rejected, so there's all the more reason to put as much effort into this revision as went into the original submission.

All being well, you will persuade the Editor and reviewers and, a week or two later, will receive an email notifying you of your acceptance. This is one of the high spots in a scientific career (and one that still thrills me). Celebrate with your co-authors, tell your Head of Department and update your CV. You are published.

ADRIAN JL CLARK
Editor-in-Chief, *Journal of Endocrinology* and *Journal of Molecular Endocrinology*

LINDSAY FLOOK
Managing Editor, Bioscientifica

Adrian Clark is Dean of Research and Deputy Principal at St George's University of London and was formerly Professor of Medicine and Head of Academic Endocrinology at Barts & the London.

Lindsay Flook is responsible for managing and developing three of the Society for Endocrinology's official journals, Journal of Endocrinology, Journal of Molecular Endocrinology *and* Endocrine-Related Cancer. *Lindsay graduated with a first class honours degree in biology from the University of Bath before starting her career in publishing.*

IS IT CUSHING'S? A TEST OR TWO TO MAKE SURE

WRITTEN BY ANDY LEVY

Barely negotiating the jambs, he heaved into the consultation room and sat glumly, one eye fixed on me and the other fixed on the back of the letter in my hand. A letter that made only one observation and offered only one solution. 'My patient is overweight. Is it Cushing's?'

It didn't look like Cushing's to me, it really didn't, but kicked into the indefensible and unquantifiable long grass of obligation by guidelines, protocols, CQUINs, CHAI, CQC, QOF, QMAS, QIPP, NSF, NUG and NICE,* patient entitlement, aggressive pharmaceutical marketing, the notion that 'more is more' irrespective of squandered resources, perceived pressure from the GP, not to mention the expectations of my highly qualified colleagues to do something more than say 'No, it's not Cushing's,' my common sense was overwhelmed.

Ignoring my gut feeling, I stepped over the 'is-it-Cushing's event horizon' and was sucked into the biochemical maelstrom: urinary free cortisols (yes, yes and yes), salivary cortisols (yes and yes), dexamethasone-suppressed corticotrophin-releasing hormone test (absolutely yes), petrosal sinus sampling (yes – obviously) and an MRI scan (can't say no).

WHEN THE PENNY DROPS

Surgery lowered circulating cortisol. However, in terms of any useful outcome – improvement in physical proportions, mental state, social circumstances, personality, income – I can safely report that investigations and management that in North America would have cost upwards of $150,000, and which were in retrospect completely defensible every step of the way, achieved at best, nothing.

Three clinic appointments came and went over the following year: always the same phenotype, the same galumphing dissatisfaction. Finally, in his desperation to get something useful out of me, he brought his family with him. Navigating into the consultation room behind him was his wife, reminiscent of an ocean liner, with a flotilla of the largest small children imaginable. In slow motion, and like a rare earth magnet falling through eddy currents in a copper tube, the fast food penny finally dropped.

PERILS OF DIAGNOSIS

Just diagnosing hypercortisolaemia can be a perilous undertaking. A significant degree of anxiety is engendered by any medical investigation and the overnight dexamethasone suppression test has a reputation for specificity and sensitivity that it absolutely does not deserve.[1] Even if the imponderable complexity of undisclosed depression or alcoholism is ignored, diurnal variation in cortisol is unravelled by shift work and vigorous exercise at either end of the day. Excessive water ingestion that hurries urine through the kidneys before the cortisol it contains can be metabolised, and direct contamination of saliva samples by steroid-containing rejuvenating night cream on the hand holding the salivette, can unpick the unwary and evade the experienced.

The nail in the coffin of supervision occurred when, as a junior doctor, I overheard (and I have to admit applauded) a generous chap who, on hearing that a distressed fellow patient had accidentally relieved himself in the ward toilet rather than in the 24-h container provided, offered to urinate in it for him.

Indeed we can't even screen for Cushing's. Of 369 people who were not just obese, but obese enough to attend a US obesity clinic, each of whom had between five and six features of Cushing's syndrome (I only know five or six features of Cushing's), none was found to be hypercortisolaemic.[2] So the trick is knowing whom not to begin testing in the first place.

WHOM TO TEST?

Do not test people who are not ill, but are exhausted and frustrated by their life-long struggle with obesity. Do not test people who were always big, who managed to lose weight in the past but now cannot, despite believing that they are using the same strategy as before, and who are reluctant (or repeatedly 'forget') to bring in old photographs of themselves when asked. Do not test people with unusual symptoms for age, such as osteoporosis and hypertension, and certainly not people with adrenal incidentalomas unless they are unequivocally Cushingoid.[3] Above all, do not test people whose phenotypes are not changing or developing.

The few people to test have multiple and progressive features of the disease, often with a change in personality. Children who are falling off the percentiles and getting fat should also be tested.

Getting it right and doing the right thing are not diagnosing and treating a biochemical abnormality. Getting it right has everything to do with our patients feeling better, living more comfortably and enjoying lower risk in the future. Getting it right is doing no harm and, whilst you don't want to miss or delay the diagnosis, you are allowed to wait and see if the phenotype is developing before taking that irrevocable first step. In that respect, in this case and probably many more, I certainly failed.

So when you know it isn't Cushing's, but that fateful thought enters your head – 'I'll just do one or two simple tests to make sure' – don't!

ANDY LEVY
Professor of Endocrinology and Honorary Consultant Physician, University of Bristol and University Hospitals Bristol NHS Foundation Trust

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*CQUIN, Commissioning for Quality and Innovation; CHAI, Commission for Healthcare Audit and Inspection; CQC, Care Quality Commission; QOF, Quality and Outcomes Framework; QMAS, Quality Management and Analysis System; QIPP, Quality, Innovation, Productivity and Prevention; NSF, National Service Frameworks; NUG, National User Group; NICE, National Institute for Health and Care Excellence.

HEWISON ON VITAMIN D

WRITTEN BY MARTIN HEWISON

One of the great pleasures of living in the USA is the availability of TV sports, most of which I will happily watch. I am less keen about ice hockey (or simply 'hockey', as it is known here) – partly because of the tendency for players' strikes to ruin the season, and partly because the puck is hard to see, even on high definition TV!

So it was it unusual for me to watch all the final games of the 2009–2010 hockey season – the Stanley Cup play-offs. It was an exciting series, with the Chicago Blackhawks defeating the Philadelphia Flyers to celebrate their first trophy in almost 50 years.

Intriguingly, many people in the vitamin D world were also celebrating. Before the 2009 season, the Blackhawks players had reportedly been taking daily vitamin D supplements at a higher than usual level (apparently 5,000IU/day), to optimise their vitamin D status. It is unclear whether this was successful, but the strategy makes sense given that hockey is an indoor sport played in winter, when UV light-induced synthesis of vitamin D in the skin will be at its nadir. Anecdotally, the team reported fewer upper respiratory tract infections and muscle strain injuries – and went on to repeat their Stanley Cup triumph 3 years later.

SO WHERE ARE THE TRIALS?

For many scientists and clinicians, this story is typical of the hyperbole that has characterised the recent revival in vitamin D research – where are the randomised trials? But for many others this is what makes vitamin D such a fascinating subject, and this is why it will always be my favourite hormone.

Of course there is still heated debate about what vitamin D deficiency is, and whether association studies tell us anything about the impact of low or high vitamin D. But this has led to a dramatic expansion of supplementation trials (most of which will be completed over the next few years), and a renewed interest in the basic biology of vitamin D, notably its non-classical, extra-skeletal effects.

Crucially, it now seems likely that many of these effects are independent of established endocrine pathways, instead involving localised, tissue-specific metabolism of vitamin D. Whilst explaining how low vitamin D status might influence diverse biological functions, this 'intracrine' function has also revived a concept that appeared to die out in the 1980s, namely vitamin D 'bioavailability'.

BOUND VS BIOAVAILABLE

Like other sterol molecules, vitamin D metabolites circulate bound to serum proteins, notably through high affinity binding to serum vitamin D-binding protein (DBP). In conventional endocrinology, DBP plays a key role in the renal handling of vitamin D, with the DBP-megalin receptor complex being internalised by proximal tubule cells. However, for many non-classical actions, DBP appears to attenuate the uptake of vitamin D by target cells, so that only 'free' or 'bioavailable' vitamin D is functional.

Some recent studies have suggested that unbound vitamin D is a more accurate marker of vitamin D status, with genetic variations in DBP abundance and binding affinity being key determinants of vitamin D bioavailability. As yet there are no commercially available assays for bioavailable vitamin D, and studies have relied on mathematical algorithms from the original 1980s publications to estimate values. However, it seems likely that this will soon change, providing yet another complication in the vitamin D story.

TRIUMPH IN TRANSLATION?

From a translational science point of view, the world of vitamin D research can often appear to be chaotic, with supplementation trials often preceding the usual accumulation of basic science data. But is this a bad thing? The number of researchers interested in vitamin D has risen dramatically over the last 5 years, and there are more and more meetings on the subject. In the USA, public interest in vitamin D has also increased, along with sales of assay kits and supplements.

Like many of my fellow vitamin D researchers, I routinely take vitamin D supplements (despite living in a sunny place), and I confess to joining in Chicago's Stanley Cup celebrations. As well as providing a nice counterpoint to the daily challenges of academic research, the Blackhawks story made me think about the wider benefits of vitamin D. Specifically, would it also work at my beloved Newcastle United? Given their Premier League position at the time of writing, this would surely be one of the great triumphs of translational science.

MARTIN HEWISON
Professor-in-Residence, David Geffen School of Medicine, University of California, Los Angeles, CA, USA

Martin Hewison has led vitamin D research groups in the USA and the UK, and has a particular interest in the role of vitamin D in human immunity.

KEY VITAMIN D FACTS

1. The major systemic form, 25-hydroxyvitamin D (25D), circulates bound primarily to vitamin D-binding protein (DBP)

2. Less than 0.1% of 25D in the circulation is 'free' (unbound), but about 10% may be termed 'bioavailable' (bound to proteins other than DBP, such as albumin)

3. Free or bioavailable 25D has been suggested as an improved marker of vitamin D 'status'

4. Free or bioavailable 25D may be the form that is utilised for extra-renal conversion of 25D to active 1,25-dihydroxyvitamin D (1,25D)

TURNING 21: A LANDMARK FOR THE BRITISH THYROID FOUNDATION

This year the British Thyroid Foundation (BTF) is proud to celebrate its 21st anniversary. A small patient support organisation based in Harrogate, the BTF has built an enviable reputation for providing support for patients with all kinds of thyroid disorders, including high quality and reliable medical-based literature. The birthday milestone is a timely opportunity to reflect on what the Foundation has achieved.

INSPIRED BY A NEED

BTF founder and director Janis Hickey was diagnosed with Graves' disease in 1984, aged 29, and was treated with carbimazole and then 'block and replace' until the duration of the over-activity burnt out some years later. Although she'd noticed a problem with her eyes (and had had all the signs of thyroid eye disease (TED) for some time), unfortunately all the early signs were missed.

Once diagnosed, Janis received excellent care and by 1998 she had had successful orbital decompression surgery, which Janis happily admits changed her life. Her confidence was restored and she felt she could move on.

In the early years, Janis had at times found her thyroid health 'depressing and distressing', and felt isolated, particularly as she didn't know anyone else with TED. Professor Larry Wood, founder of the Thyroid Foundation of America, put Janis in touch with Sir Richard Bayliss. He strongly supported the creation of a thyroid foundation in the UK to ensure that patients were well-informed.

SETTING THE OBJECTIVES

Together with her endocrinologist, Dr Paul Belchetz, Janis approached other thyroid specialists. At a meeting in Newcastle upon Tyne in July 1991 the new charity's objectives were set: awareness-raising, support and information, establishing local groups and raising funds for research, and the charity was subsequently registered. The BTF was launched at the 1992 BES meeting in Harrogate.

By 2001, Janis' role as National Co-ordinator could no longer be undertaken on a voluntary basis. She became an employee and moved the BTF to bigger premises. By this time, the needs of thyroid patients were evident. Key to addressing their concerns were a website, groups to head projects and campaigns, and a regular review of BTF information. The BTF has worked formally with the British Thyroid Association since its outset, and so was ideally positioned to listen to patients' concerns and convey them to thyroid specialists.

THE BTF TODAY

The BTF has grown considerably in size and stature over the last 21 years. Our current campaigns and projects include a diverse range of resources to benefit patients and those who support them.

For **Children** – the BTF has launched a short animated film for young patients with thyroid disorders, and is now planning the first Children's Conference, in Leeds on 26 April 2014

Pregnancy and Iodine – we are a member of the newly formed UK Iodine Status Strategy (UKISS) Group, working with other organisations to address mild to moderate iodine deficiency in the UK

In **Thyroid Eye Disease** – the BTF is working to assist implementation of the 'Amsterdam Declaration for Graves' Orbitopathy' in the UK (TEAMeD)

Hypothyroidism Care Strategy – this new project will enable us to identify ways to improve support for difficult-to-treat hypothyroid patients

For **Thyroid Cancer** – the BTF is planning the third edition of *Thyroid Cancer: for Patients, by Patients*, working alongside the Thyroid Cancer Alliance

Films – we are developing short films that reflect people's experiences of thyroid disorders, as a new way of engaging with patients

More information on the initiatives above is available on www.btf-thyroid.org.

The Foundation is aware that there's still much to be done. The calls, letters and emails we receive are a daily reminder that far too many thyroid patients simply do not get the care they need. Despite this, the changes over the past 21 years have been enormous. No longer are patients expected simply to be on the receiving end of healthcare. Many want to be actively involved, not only in decisions about their own care but also in research, in discussions, giving feedback on guidelines, and fundraising.

The BTF is extremely grateful to all the thyroid specialists who have advised, guided and supported the Foundation over the years. Without their invaluable input, we wouldn't be here and thyroid patients would be without the support they deserve.

JULIA PRIESTLEY
British Thyroid Foundation

CONTACT DETAILS FOR PATIENTS

- Main phone numbers: **01423 709707/709448**
- Visit **www.btf-thyroid.org** for a comprehensive list of phone numbers for telephone support contacts and local co-ordinators
- Email: **info@btf-thyroid.org**
- Facebook: **www.facebook.com/britishthyroidfoundation**
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A FREE 1-DAY MEETING FOR PARENTS, CARERS AND CHILDREN

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Contact the British Thyroid Foundation for more information:
Tel: **01423 709707**
Email: **julia.priestley@btf-thyroid.org**

IMAGES IN ENDOCRINOLOGY

Here are the latest highlights from our journal Cover Art Competition, showcasing the best images in endocrinology.

COVER IMAGE FROM *JOURNAL OF MOLECULAR ENDOCRINOLOGY*

OCTOBER 2013

The image depicts the expression of ABCA1 in the human preterm placenta, particularly of ABCA1 in cyto- and syncytiotrophoblasts. The image was taken as part of an obstetrics and gynaecology resident research project investigating whether pregnancies with intrauterine growth restriction have increased or decreased cholesterol efflux to the fetus.

Credit: **K Nygard, Integrated Microscopy, Biotron, and D Hardy, Children's Health Research Institute, both at Western University, London, Ontario, Canada.**

Enter our Cover Art Competition

for *Journal of Endocrinology, Journal of Molecular Endocrinology* and *Endocrine-Related Cancer.*

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Tostran®

2% testosterone gel

Tostran® (testosterone) 2% Gel Prescribing Information Please refer to Summary of Product Characteristics (SPC) before prescribing. **Presentation** Tostran 2% Gel, contains testosterone, 20 mg/g. **Indications** Replacement therapy with testosterone for male hypogonadism when testosterone deficiency has been confirmed by clinical symptoms and laboratory analyses. **Posology** The starting dose is 3 g gel (60 mg testosterone) applied once daily at approximately the same time each morning to clean, dry, intact skin, alternately on the abdomen or to both inner thighs. Adjust dose according to clinical and laboratory responses. Do not exceed 4 g of gel (80 mg testosterone) daily. Apply after washing, bathing or showering. Do not apply to the genitals. Do not use in women, or children under the age of 18 years. **Contraindications** Known or suspected carcinoma of the breast or the prostate; hypersensitivity to any of the ingredients. **Special warnings and precautions for use** Tostran should not be used to treat non-specific symptoms suggestive of hypogonadism if testosterone deficiency has not been demonstrated and if other aetiologies responsible for the symptoms have not been excluded. Not indicated for treatment of male sterility or sexual impotence. All patients must be pre-examined to exclude a risk of pre-existing prostatic cancer. Perform careful and regular monitoring of breast and prostate. Androgens may accelerate the development of subclinical prostatic cancer and benign prostatic hyperplasia. Oedema with/without congestive heart failure may be a serious complication in patients with pre-existing cardiac, renal or hepatic disease. Discontinue immediately if such complications occur. Use with caution in hypertension as testosterone may raise blood pressure. Use with caution in ischemic heart disease, epilepsy, migraine and sleep apnoea as these conditions may be aggravated. Care should be taken with skeletal metastases due to risk of hypercalcaemia/hypercalcuria. Androgen treatment may result in improved insulin sensitivity. Inform the patient about the risk of testosterone transfer and give safety instructions. Health professionals/carers should use disposable gloves resistant to alcohols. **Interactions** When androgens are given simultaneously with anticoagulants, the anticoagulant effect can increase and patients require close monitoring of their INR. Concurrent administration with ACTH or corticosteroids may increase the likelihood of oedema and caution should be exercised. **Undesirable effects** Very common (≥1/10): application site reactions (including paresthesia, xerosis, pruritis, rash or erythema); common (≥1/100, <1/10): increased haemoglobin, haematocrit; increased male pattern hair distribution; hypertension; gynaecomastia; peripheral oedema; increased PSA. Certain excipients may cause irritation and dry skin. Consult SPC for other undesirable effects of testosterone. **Pack Size and Price** Packs containing one or three 60 g metered-dose canisters per pack. Price £26.67 per canister. **Legal Category** POM Further information is available from the **Marketing Authorisation Holder** ProStrakan Limited, Galabank Business Park, Galashiels, TD1 1QH, UK. **Marketing Authorisation Number** PL16508/0025 ©ProStrakan. ®Registered Trade Mark. Date of PI Preparation: March 2012.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard
Adverse events should also be reported to ProStrakan Limited on 01896 664000

References:
1. Dumas C. Poster presented at the 25th Scandinavian Meeting of Urology, Göteborg, June 2005 **2.** Tostran® Summary of Product Characteristics, March 2012 **3.** Testogel® Summary of Product Characteristics, November 2006 **4.** Testim® Summary of Product Characteristics, June 2011 **5.** MIMS February 2013.

M015/1194 Date of preparation February 2013

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